

AD-A183 399 PROJECTED DEFENSE PURCHASES DETAIL BY INDUSTRY AND
STATE CALENDAR YEARS 1987 THROUGH 1992(U) WASHINGTON
HEADQUARTERS SERVICES (DOD) DC DIRECTORATE FOR INF
UNCLASSIFIED 1987 D10R/87 F/G 5/1

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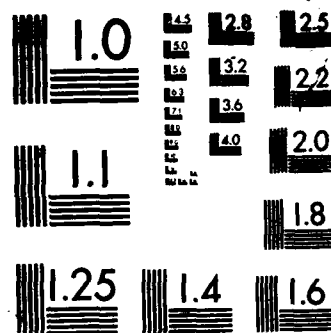
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PROJECTED DEFENSE PURCHASES

DETAIL BY INDUSTRY AND STATE

Calendar Years 1987 through 1992

**Department of Defense
Washington Headquarters Services
Directorate for Information
Operations and Reports**

DTIC AND NTIS IDENTIFICATION NUMBER FOR THIS PUBLICATION IS DIOR/87.

FOREWORD

Projected Defense Purchases by Industry and State is issued by the Office of the Secretary of Defense (OSD), Washington Headquarters Services, Directorate of Information Operations and Reports (WHS/DIOR). The estimates were prepared by the Economic Analysis and Resource Planning Division of the Office of Program Analysis and Evaluation of the Office of the Secretary of Defense.

The report provides projections of direct and indirect (or defense-related) purchases from fifty major manufacturing industries, and estimates of direct and indirect defense spending in each state. An Introduction provides a brief overview of the definitions, budgetary concepts, and expenditure categories used in developing the estimates, and offers some guidelines for interpreting them. The tabular material is divided into three sections:

Section I: Summary Tables

Section II: Projections for Selected Industries

Section III: Individual State Projections.

Descriptions of table formats accompany the projections.

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INTRODUCTION AND HIGHLIGHTS

This report presents estimates of defense purchases from 50 major Standard Industrial Classification (SIC) industries that are major defense suppliers, of defense-related employment, and of defense and defense-related spending that may occur in each of the 50 states and the District of Columbia during calendar years 1987 through 1992. The estimates are based on the President's budget submission in January 1987, and on the geographic distribution of the major components of defense spending in the recent past. A description of the model and data used to generate the estimates may be found in Defense Purchases: An Introduction to DEIMS, in State-Level Projections of Potential Defense Outlays: An Introduction to RDEIMS and in Defense-Related Employment of Skilled Labor: An Introduction to LDEIMS. ^{1/}

It must be stressed that the figures reported here are projections; they do not necessarily reflect what actual defense expenditures will prove to be in various industries or states in future years. Purchases from particular industries will depend upon the level and composition of the defense budget enacted by the Congress, and the location of purchases will be determined not only by the level of defense spending, but by the location of industries and by competition among firms within them, both for prime contracts and for subcontracts. ^{2/} The projections are therefore intended to serve as benchmarks: They describe the future pattern of defense and defense-related expenditures assuming that each state's shares of the various components of defense activity remain what they have been in the recent past.

Definitions and Coverage

The estimates presented in the following sections consider both "direct" and "indirect" defense expenditures. Direct defense expenditures, ~~as their name implies,~~ are the expenditures that the Department of Defense (DoD) itself makes. These include purchases of goods and services, as well as military and civilian pay.

Indirect (or defense-related) expenditures, in contrast, represent purchases--generated throughout the economy--of items used to produce goods bought by DoD. That is, they reflect the purchases of materials, tools, and parts that prime contractors make from their suppliers in order to perform the work for which DoD has contracted. Those sales, in turn, trigger subsequent rounds of transactions, as subcontractors purchase goods and services from their major suppliers and those firms place orders with companies at lower tiers of the production chain. It is to this sequence of purchases--of goods and services from subcontractors and lower-tier suppliers--that the term "indirect defense purchases" applies.

^{1/} Available from the Office of the Assistant Secretary of Defense for Production and Logistics, Office of Industrial Base Assessment, Two Skyline Place, Suite 1406, 5203 Leesburg Pike, Falls Church, Virginia 22041-3466, telephone number (202)756-2310.

^{2/} The Directorate of Information Operations and Reports in the Washington Headquarters Services publishes comprehensive data on prime contract awards and personnel expenditures in each state in a volume entitled Atlas/State Data Abstract for the United States. The edition covering the 1985 fiscal year is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

"Indirect defense purchases resulting from pay", shown on the individual tables for each state in Section IV, refers to the production of goods and services consumed by DoD's civilian and military employees. Estimates for these expenditures are included in the state-level tables because the concept has been of interest to planning agencies and others concerned with local economic development. The methods used to generate these estimates are viewed as experimental, however, and are still under development. "Indirect purchases resulting from pay" are not included in the industry estimates reported in Section III.

The employment estimates include DoD civilian employment and employment resulting from DoD's direct and indirect purchases of goods and services. Employment resulting from "indirect purchases resulting from pay" or from personal consumption expenditures are not included.

Budget Concept Employed. The projections are expressed in terms of outlays. Outlays represent disbursements of funds made during the course of a year. In contrast, budget authority is the amount of money that DoD can commit in any given year. Budget authority differs from outlays in that contractual obligations (which must be within the limits set by budget authority) often call for payments to be spread over a period of years, as the work is completed. (Budget authority for development and procurement projects, in particular, tends to be disbursed over a period of several years.) During periods of budget growth, budget authority tends to be greater than outlays. The preliminary estimates provided in Estimated Defense Expenditures for States, Fiscal Year 1987 were stated in terms of budget authority, and are therefore not directly comparable to the more comprehensive estimates provided here.

Coverage. The federal budget is divided into a number of sections (called "functional categories"), each containing programs serving a common purpose. National security-related programs are grouped under Functional Category 050 (National Defense). This category includes all of the Defense Department's military programs and the national security programs administered by other federal departments, such as the Department of Energy. It excludes the costs of nonmilitary programs of the Department of Defense (for example, highway bridge inspection projects conducted by the Army Corps of Engineers).

The projections reported here are based on a narrower budget grouping, Functional Category 051 (Department of Defense, Military). This category includes all of the Defense Department's military programs, but excludes the national security programs administered by other agencies and DoD programs serving civil functions (principally public works projects of the U.S. Army Corps of Engineers).

The defense budget (defined here to include only those programs falling within Functional Category 051) is partitioned into five major accounts: military personnel; operations and maintenance (O&M); procurement; research, development, test, and evaluation (RDT&E); and military construction. The titles of these accounts are reasonably descriptive of the types of expenses they cover:

- o The military personnel account covers the pay of active-duty service members and reservists as well as some other personnel-related expenses, such as permanent change-of-station travel and purchases of military uniforms.
- o The O&M account funds the day-to-day operations of the defense establishment. Money from this account goes to purchase fuel and other consumable items and to pay all but a small share of DoD's civilian work force.
- o The procurement account covers purchases of weapons and equipment, and other military capital goods.

- o The RDT&E account pays for the development and testing of new military systems, and for other research activities and associated civilian pay.
- o The military construction account covers the cost of constructing military facilities and of providing housing for military personnel and their dependents.

Military retirement pay is not included in Category 051 as a separate account. Funds representing future military retirement benefits earned during any given year are reflected in the military personnel account but transferred to a trust fund. However, because the geographic distribution of retirement pay is different from the distribution of the rest of the military personnel account, the state-level projections presented here treat military retirement pay as if it were a separate part of Category 051.

Highlights of the Projections

The composition of projected Defense purchases is quite different than the composition of purchases in the more general economy. The top half of Figure 1 presents information on the composition of projected defense and non-defense final purchases in 1987. A large proportion of defense purchases--nearly three quarters--are made from manufacturing industries. In contrast, only about 21 percent of non-defense final purchases are made from the manufacturing sector of the economy. Services make up about 21 percent of defense final purchases, but about 68 percent of non-defense final purchases.

The lower half of the figure presents information on the composition of estimated defense and non-defense indirect purchases--the sales of tools, materials and supplies required as intermediate goods in the production process. The manufacturing intensity of defense purchases is reflected in indirect defense purchases as well. Although indirect defense purchases more nearly resemble their non-defense counterparts than do direct defense purchases, manufacturing accounts for over half of projected defense indirect purchases, but only about 39 percent of projected non-defense indirect purchases.

The first table in Section I of this report lists the manufacturing industries with the largest projected defense production (direct and indirect). While some of these industries are armament or defense oriented industries, (shipbuilding, tanks and tank components, aircraft, and complete guided missiles, for example), it is important to note that significant defense purchases are made directly or indirectly from other manufacturing industries not so obviously oriented towards defense activities (electronics, blast furnaces and steel mills, motor vehicle parts, industrial controls, telephone and telegraph equipment) as well.

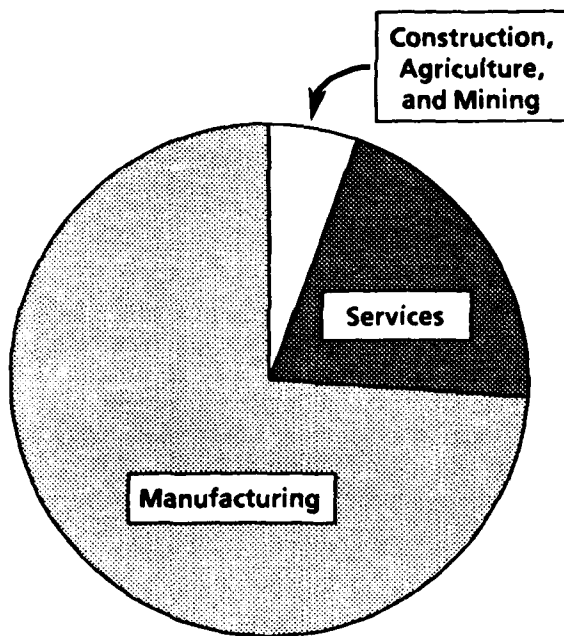
Defense-Related Employment

Defense-related civilian employment (including the civilian employees of the Department of Defense) represents about 4 percent of projected total civilian employment. The composition of defense-related civilian employment in 1987 is somewhat different from non-defense employment. The differences reflect the manufacturing intensity of defense purchases, as well as specific employment patterns of the individual industries from which defense purchases are made.

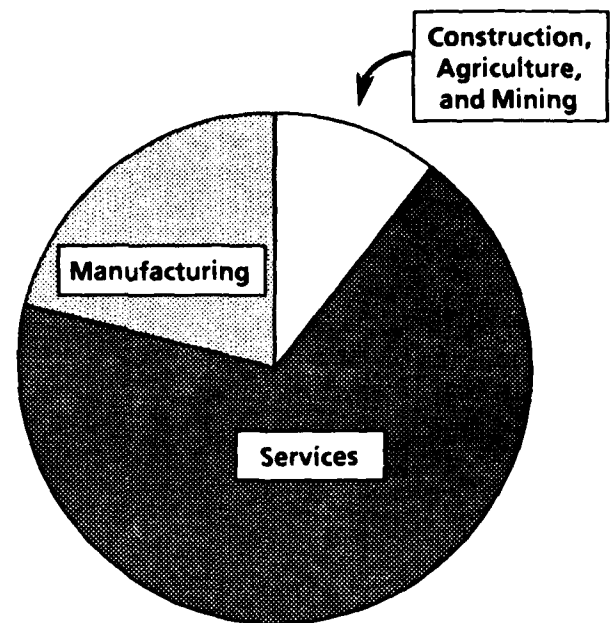
Occupations primarily associated with manufacturing industries, craft workers and operatives, account for a large share of defense-related employment, while service workers account for a large proportion of non-defense employment. (See Figure 2.) Engineering and scientific workers also account for a somewhat larger share of defense-related employment (10 percent) than they do of non-defense employment (3 percent). More detailed tabulations of defense-related employment (including a breakout of engineering and scientific personnel by specialty) may be found in Section I.

FIGURE 1

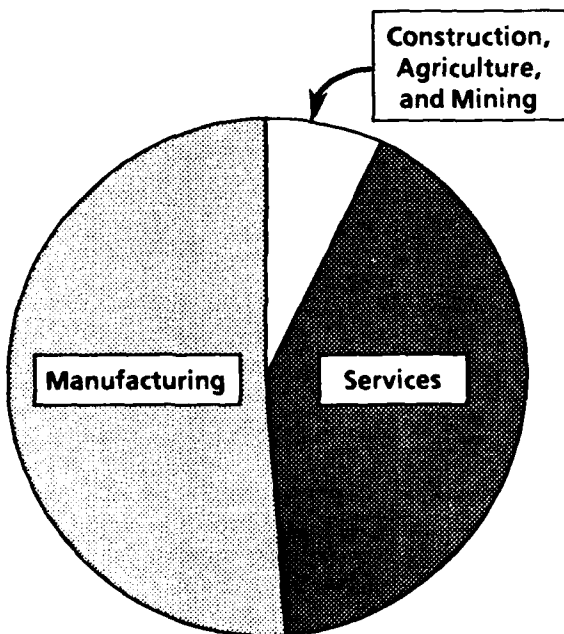
COMPOSITION OF DEFENSE AND NON-DEFENSE PURCHASES



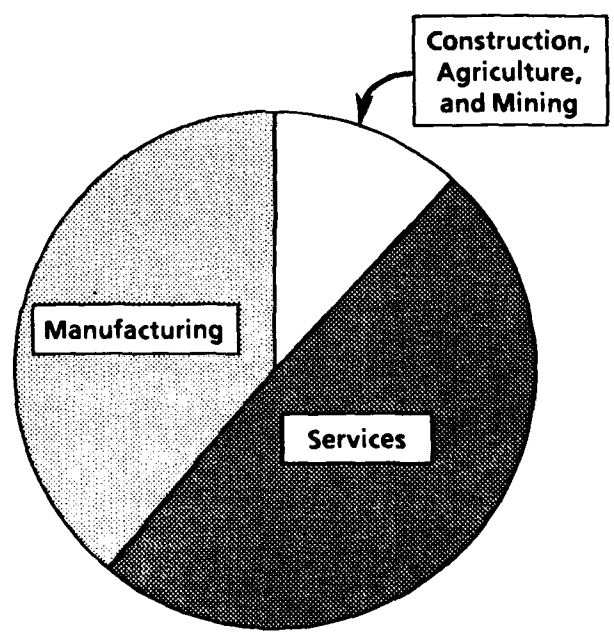
DEFENSE FINAL PURCHASES



NON-DEFENSE FINAL PURCHASES

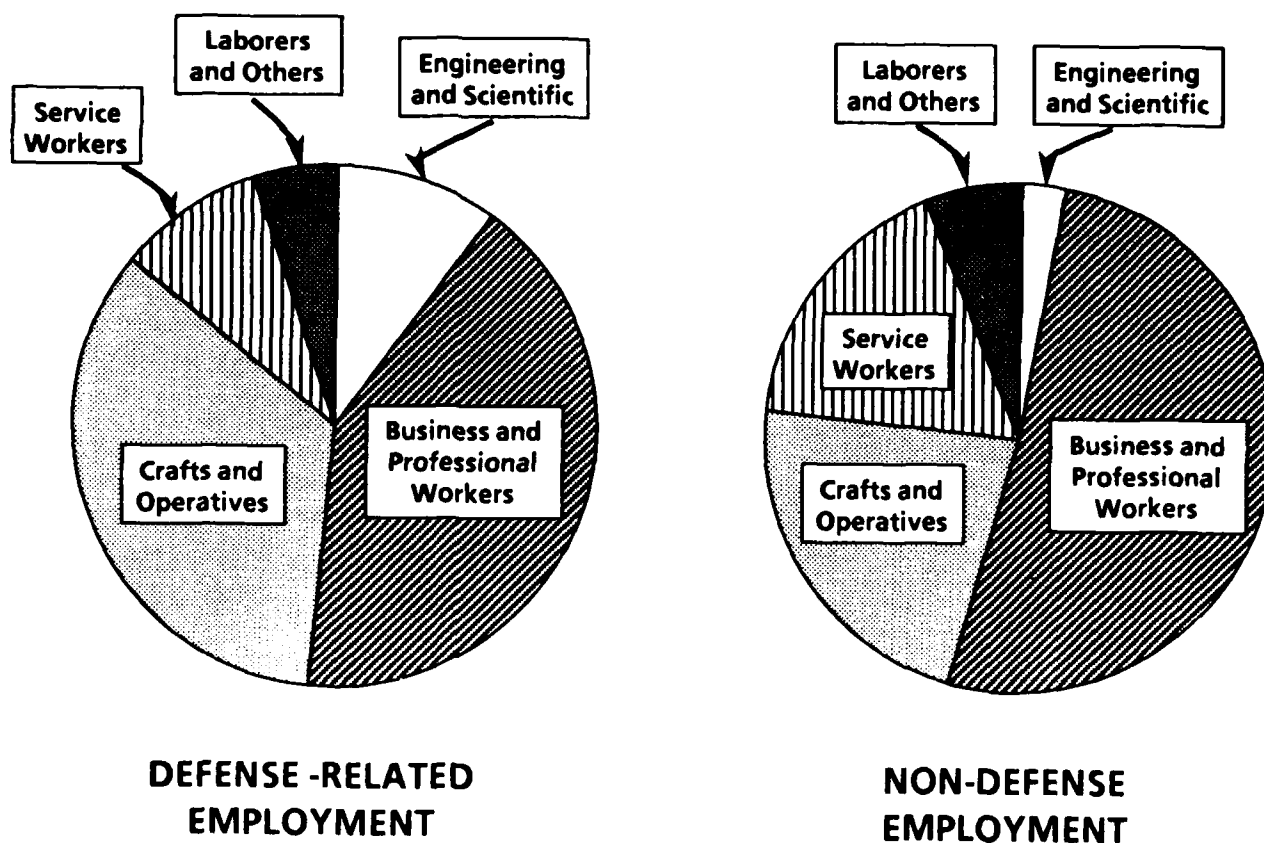


INDIRECT DEFENSE PURCHASES



INDIRECT NON-DEFENSE PURCHASES

FIGURE 2
COMPOSITION OF CIVILIAN EMPLOYMENT



Defense Expenditures By State

Table 1 presents estimates of direct, indirect, and total (direct plus indirect) defense expenditures in 1987 for each of the nine census divisions and for the United States as a whole. For each region and each expenditure category, the table records both a per capita estimate and a range of estimates corresponding to the upper and lower bounds of the estimates for the individual states within the region.

The geographic distribution of defense expenditures reflects both the distribution of military personnel and that of the industries that make defense goods, which is quite different from that of pay. While New England, for example, ranks seventh among the nine regions in defense pay per capita, it ranks first in the level of projected defense purchases, and second only to the Pacific region in projected total direct expenditures. More generally, three of the four regions which rank lowest in pay also rank in the top five in projected direct purchases.

The dispersion within the regions is large relative to the dispersion across regions. For example:

- o Six of the nine regions contain one or more states for which projected total defense expenditures (direct and indirect) are projected to be above the national average.
- o Seven of the nine regions contain at least one state for which projected total defense expenditures are less than 80 percent of the national average.
- o The variation within a region (the difference between the lowest state estimate and the highest state estimate within a region) is greater than the variation among regions (the difference between the lowest regional estimate and the highest regional estimate) in five of the nine regions.

It should be noted that these projections describe the pattern of defense and defense related expenditures assuming that the geographic distribution of the various components of defense activity remains what it has been in recent years. The actual completion for defense contracts, of course, may produce a future geographic pattern that differs from historical distributions.

Limitations

The projections of defense purchases in Section II show direct and indirect purchases from various SIC industries. They attempt to include all defense purchases, whether or not they are made domestically.

By contrast, the state-level projections reported here include only purchases and pay estimated to be made in the 50 states and the District of Columbia. They exclude expenditures made abroad or in U.S. territories, the pay of military personnel stationed on ships in foreign waters, and expenditures for imported goods. In order to factor out such expenditures, historical data showing the distribution of military personnel were used and an assumption was made about the level of defense imports. Specifically, it was assumed that, for the products of any given industry, imports will constitute the same share of defense purchases as they will of civilian purchases. But because the Defense Department is required to channel most of its purchases to domestic firms, and because defense purchases often represent specialized products, the percentage of defense purchases accounted for by imports may be lower than this assumption suggests. To the extent that this is the case, the projections will underestimate the proportion of defense expenditures that will occur in the United States.

TABLE 1
ESTIMATED DEFENSE EXPENDITURES PER CAPITA, 1987
(BY REGION, IN 1986 DOLLARS) *

<u>Region</u>	<u>Direct</u>			<u>Indirect</u>	<u>Total</u>
	<u>Pay</u>	<u>Purchases</u>	<u>Total</u>		
New England	226 (121-513)	1195 (417-1705)	1420 (538-1890)	1430 (980-1761)	2851 (1652-3651)
Mid-Atlantic	154 (86-221)	505 (401-566)	659 (622-773)	1043 (1013-1135)	1701 (1635-1908)
South Atlantic	643 (114-1807)	589 (92-1427)	1232 (207-3234)	988 (793-1712)	2219 (1000-4947)
East North Central	151 (80-189)	366 (244-576)	517 (355-742)	1055 (977-1155)	1572 (1375-1897)
West North Central	234 (68-452)	604 (120-982)	838 (322-1271)	1019 (612-1175)	1857 (1160-2447)
East South Central	375 (191-513)	348 (175-725)	722 (449-1229)	881 (800-934)	1603 (1347-2144)
West South Central	378 (266-562)	462 (196-554)	840 (556-940)	985 (831-1059)	1825 (1435-1999)
Mountain	447 (227-602)	445 (81-627)	892 (334-1076)	931 (599-1119)	1824 (953-2195)
Pacific	528 (177-1951)	1113 (156-1264)	1641 (333-2409)	1167 (738-1230)	2808 (1132-3147)
United States	357 (68-1807)	612 (81-1705)	969 (207-3234)	1050 (599-1761)	2019 (953-4947)

Note: The numbers in parentheses reflect the lower and upper bounds of the estimates for individual states in the regions.

Comparison With Previous Estimates

The estimates presented here differ from those published in earlier editions of this report for several reasons. First, planned budgets change each year. Second, the data used in making the projections are periodically revised. For example:

- o The estimated shares of particular activities that take place in each state have been revised to reflect more recent data.
- o The proportion of defense and defense-related purchases assumed to be made abroad or representing imported goods are revised annually.
- o New data on purchases made from the operations and maintenance account has been introduced.

Finally, the input/output model used to compute estimates of indirect purchases has been substantially revised to reflect more recent data, affecting the magnitude and distribution of these estimates. Differences between the estimates reported here and those previously reported thus reflect data revisions as well as budgetary changes.

SECTION I: SUMMARY TABLES

The summary tables that follow provide an overview of estimated defense expenditures and employment. The first table presents estimates of total defense purchases for the top fifty manufacturing industries. (429 4-digit Standard Industrial Code industries are included in the projections. A mapping from the industry number shown here to Standard Industrial Codes can be found in Defense Purchases: An Introduction to DEIMS.) The estimates shown include both direct and indirect purchases. The second table presents estimates of defense-related employment by major occupational category, while the third table shows more detailed estimates of defense-related employment of engineers and scientists.

The remaining five tables present state-level information:

- o The first three state-level tables present estimates of direct defense expenditures, first in the aggregate and then by selected budget accounts. The first table records the amount of outlays (for purchases and pay) projected to be made in each state during each year of the forecast period. (The estimates assume that the state shares of underlying components of pay and purchases remain at their recent levels.) The next two tables break out these estimates by budget category, the first showing outlays arising from the procurement and RDT&E accounts and the second showing outlays arising from the remaining accounts.
- o The last two state-level tables present estimates of indirect defense expenditures. The first of these covers indirect expenditures arising from purchases made by the Department of Defense, while the second presents the indirect expenditures arising from the wages and salaries of DoD personnel and military retirement pay.

**50 MANUFACTURING INDUSTRIES
LEADING IN DEFENSE PRODUCTION
RANKED ON 1987 VALUES
(Millions of 1986 Dollars)**

SUPPLYING INDUSTRY	1987	1988	1989	1990	1991	1992
333. RADIO&TV COMMUNICATION EQUIP	33,649	34,012	34,892	36,324	38,040	39,992
351. AIRCRAFT	16,999	16,022	15,141	15,017	15,104	15,653
353. AIRCRAFT PARTS & EQUIP,NEC	11,146	10,550	10,207	10,377	10,718	11,103
50. COMPLETE GUIDED MISSILES	9,018	9,357	9,957	10,641	11,214	11,816
354. SHIPBUILDING & REPAIRING	8,045	8,035	7,978	8,073	8,318	8,699
352. AIRCRAFT ENGINES&ENG PARTS	7,124	6,732	6,567	6,699	6,846	7,054
312. ELECTRIC MEASURING INSTR	6,616	6,717	6,788	6,742	6,735	6,928
168. INORGANIC & ORGANIC CHEM	5,372	5,587	5,852	6,082	6,305	6,537
340. ELEC. COMPONENTS, NEC	5,235	5,308	5,436	5,685	5,999	6,339
188. PETROLEUM REFINING	5,223	5,484	5,652	5,880	6,103	6,318
303. ELECTRONIC COMPUTING EQUIP	5,155	5,440	5,729	6,067	6,536	7,018
223. BLAST FURNACES & STEEL MILLS	4,428	4,348	4,262	4,376	4,515	4,526
335. SEMICONDUCTORS	4,161	4,238	4,435	4,702	5,032	5,400
51. AMMUNITION,EX SMALL ARMS,NEC	3,662	3,456	3,435	3,536	3,848	4,146
362. MEASURING & CONTROL INSTR	3,262	3,308	3,339	3,321	3,352	3,446
349. OTHER MOTOR VEHICLES	2,817	2,634	2,537	2,546	2,656	2,754
197. MISC PLASTIC PROD.	2,734	2,827	2,957	3,108	3,296	3,501
52. TANKS & TANK COMPONENT	2,320	2,122	1,867	1,742	1,633	1,616
55. OTHER ORDNANCE & ACCESSORIES	2,228	2,200	2,129	2,107	2,120	2,179
302. MISC. MACHINERY	2,052	1,996	1,965	1,991	2,051	2,136
350. MOTOR VEHICLE PARTS & ACCESS.	2,014	1,954	1,938	1,969	2,025	2,093
361. ENGINEERING & SCIENTIFIC INST	1,651	1,692	1,735	1,767	1,795	1,858
178. PLASTIC MATLS & RESINS	1,577	1,628	1,707	1,768	1,833	1,934
284. SPECIAL DIES,TOOLS,ACCESSORIES	1,572	1,530	1,507	1,537	1,587	1,657
367. OPTICAL INSTRS & LENSES	1,396	1,540	1,689	1,818	1,961	2,132
315. MOTORS & GENERATORS	1,367	1,381	1,388	1,412	1,486	1,561
257. SCREW MACHINE PRODUCTS	1,261	1,260	1,268	1,295	1,331	1,374
281. INDUST. TRUCKS & TRACTORS	1,162	1,157	1,148	1,154	1,227	1,280
239. ALUMINUM ROLLING & DRAWING	1,105	1,100	1,096	1,135	1,190	1,257
235. PRIMARY ALUMINUM	1,091	1,069	1,058	1,076	1,109	1,151
271. STEAM ENGINES & TURBINES	1,031	1,013	977	933	898	889
332. TELEPHONE & TELEGRAPH EQUIP	1,031	1,105	1,185	1,225	1,250	1,292
241. NONFER WIRE DRAWING&INSULATIN	1,016	1,029	1,053	1,072	1,101	1,160
282. MACH TOOLS,METAL CUTTING	1,016	1,002	989	975	977	1,013
339. CONNECTORS, FOR ELEC. APP.	904	913	927	971	1,029	1,091
363. SURGICAL & MEDICAL INSTRS	896	916	910	908	970	1,013
259. OTHER METAL STAMPINGS	885	893	906	936	977	1,029
316. INDUSTRIAL CONTROLS	878	892	905	930	970	1,023
145. PAPER MILLS,EXC. BLDG. PAPER	859	890	922	962	1,007	1,057
236. PRIMARY NONFER METALS,NEC	787	775	788	808	836	877
155. PAPERBOARD CONTAINERS & BOXES	787	811	824	860	901	945
364. SURGICAL APPLIANCES & SUPPLIES	786	834	862	909	987	1,056
264. PLATING & POLISHING	768	775	780	803	837	885
272. INTERNAL COMBUS. ENGINES,NEC	754	762	788	825	864	903
161. COMMERCIAL PRINTING	691	736	774	794	817	853
228. IRON & STEEL FOUNDRIES	691	712	711	730	746	754
275. CONSTRUCTION MACHINERY	681	686	703	735	776	817
369. PHOTOGRAPHIC EQUIP & SUPPLIES	673	696	710	736	772	806
232. PRIMARY COPPER	652	652	655	673	691	719
268. PIPE,VALVES & PIPE FITTINGS	627	648	675	711	748	785

Source: IDEIMS, May 5,1987

ESTIMATES OF TOTAL DEFENSE RELATED EMPLOYMENT BY OCCUPATION
(Thousands)

Occupational Category	1987	1988	1989	1990	1991	1992
ENGINEERS	257	252	252	255	259	264
SCIENTISTS	23	23	23	24	24	24
ENGINEERING & SCIENCE TECHNICIANS	156	154	154	155	157	159
HEALTH WORKERS	48	52	55	55	56	58
TECHNICIANS, NEC	28	29	29	30	30	30
COMPUTER SPECIALISTS	70	71	73	75	78	80
SOCIAL SCIENTISTS & OTHER PROFESSIONALS	227	232	238	241	243	247
BUSINESS & PROFESSIONAL STAFF	1,416	1,424	1,441	1,462	1,482	1,507
CRAFT & RELATED WORKERS	721	708	706	708	714	722
OPERATIVES	764	751	744	745	750	757
SERVICE WORKERS	389	405	420	430	438	447
LABORERS, EXCEPT FARM	208	208	209	210	213	216
AGRICULTURE & RELATED OCCUPATIONS	19	20	21	22	23	23
TOTAL	4,326	4,330	4,366	4,413	4,466	4,534

SRC: LDEIMS0587

ESTIMATES OF TOTAL DEFENSE RELATED EMPLOYMENT
ENGINEERING AND SCIENTIFIC OCCUPATIONS
(Thousands)

Occupational Category	1987	1988	1989	1990	1991	1992
1. Aero-astronautic engineers	21	20	19	19	19	19
2. Chemical Engineers	5	5	5	5	5	5
3. Civil Engineers	18	18	19	19	19	19
4. Electrical Engineers	98	97	98	99	102	104
5. Industrial Engineers	22	21	21	21	21	22
6. Mechanical Engineers	39	39	38	39	39	40
7. Metallurgical Engineers	3	3	3	3	3	3
8. All Other Engineers	50	49	49	49	50	51
TOTAL ENGINEERS	257	252	252	255	259	264
10. Chemists	6	6	6	6	6	6
11. Physicists	5	5	5	5	5	5
12. Biological & Medical Scientists	3	3	3	3	3	3
13. Mathematicians & Statisticians	5	5	5	5	5	5
14. Scientists, NEC	5	5	5	5	5	5
TOTAL SCIENTISTS	23	23	23	24	24	24
16. Drafters	32	31	31	31	31	31
17. Electrical & Electronic Technicians	56	56	56	57	58	60
18. Mechanical Engineering Technicians	10	9	9	9	10	10
19. Engineering & Science Tech., NEC	57	57	57	58	58	59
TOTAL ENGINEERING & SCIENCE TECHNICIANS	156	154	154	155	157	159
TOTAL ENGINEERS & SCIENTISTS	435	429	429	434	440	447

SRC: LDEIMS0587

**ESTIMATES OF DIRECT DEFENSE PURCHASES AND PAY
(MILLIONS OF 1986 DOLLARS)**

STATE	1987	1988	1989	1990	1991	1992
ALABAMA	3,593	3,606	3,646	3,696	3,769	3,856
ALASKA	985	996	1,019	1,043	1,066	1,088
ARIZONA	3,449	3,443	3,474	3,538	3,618	3,718
ARKANSAS	1,334	1,346	1,377	1,422	1,463	1,510
CALIFORNIA	48,069	48,260	48,820	49,733	50,990	52,613
COLORADO	3,557	3,617	3,685	3,737	3,801	3,894
CONNECTICUT	6,091	5,947	5,862	5,933	6,079	6,290
DELAWARE	405	415	423	431	439	448
DIST. OF COLUM.	2,031	2,074	2,134	2,169	2,218	2,278
FLORIDA	11,363	11,420	11,538	11,780	12,056	12,379
GEORGIA	6,091	6,106	6,169	6,288	6,426	6,588
HAWAII	2,595	2,603	2,639	2,676	2,724	2,776
IDAHO	336	342	347	356	362	369
ILLINOIS	5,024	5,097	5,159	5,263	5,403	5,552
INDIANA	4,101	4,007	3,969	4,059	4,206	4,352
IOWA	914	933	951	983	1,019	1,056
KANSAS	2,909	2,862	2,849	2,882	2,935	3,014
KENTUCKY	2,052	2,072	2,105	2,146	2,192	2,236
LOUISIANA	3,027	3,084	3,145	3,229	3,323	3,428
MAINE	1,295	1,319	1,343	1,371	1,410	1,454
MARYLAND	7,686	7,847	8,054	8,253	8,493	8,774
MASSACHUSETTS	8,553	8,788	8,993	9,106	9,296	9,617
MICHIGAN	3,536	3,539	3,557	3,632	3,747	3,870
MINNESOTA	2,831	2,895	2,954	3,044	3,168	3,303
MISSISSIPPI	3,244	3,233	3,262	3,333	3,418	3,514
MISSOURI	6,474	6,485	6,535	6,665	6,814	7,012
MONTANA	289	295	302	310	317	324
NEBRASKA	895	912	925	943	963	982
NEVADA	594	602	612	628	640	652
NEW HAMPSHIRE	1,141	1,160	1,185	1,221	1,264	1,311
NEW JERSEY	5,960	6,094	6,211	6,335	6,502	6,708
NEW MEXICO	1,556	1,579	1,614	1,638	1,667	1,705
NEW YORK	11,325	11,461	11,604	11,845	12,168	12,583
NORTH CAROLINA	4,112	4,156	4,217	4,301	4,382	4,471
NORTH DAKOTA	423	427	435	446	455	465
OHIO	7,325	7,353	7,391	7,435	7,568	7,787
OKLAHOMA	2,495	2,502	2,529	2,561	2,609	2,659
OREGON	908	924	929	944	963	984
PENNSYLVANIA	7,404	7,483	7,562	7,663	7,838	8,065
RHODE ISLAND	890	904	922	945	971	1,000
SOUTH CAROLINA	3,210	3,223	3,269	3,337	3,406	3,476
SOUTH DAKOTA	305	311	317	325	332	339
TENNESSEE	2,180	2,241	2,293	2,346	2,401	2,459
TEXAS	15,843	15,944	16,111	16,387	16,713	17,150
UTAH	1,781	1,805	1,832	1,848	1,889	1,937
VERMONT	295	295	297	308	319	330
VIRGINIA	16,118	16,272	16,540	16,820	17,186	17,644
WASHINGTON	7,217	7,263	7,335	7,388	7,503	7,692
WEST VIRGINIA	395	404	410	418	426	434
WISCONSIN	1,701	1,706	1,710	1,748	1,806	1,867
WYOMING	245	251	256	263	269	275
TOTAL, US	236,153	237,902	240,815	245,170	250,991	258,286

**ESTIMATES OF DIRECT DEFENSE PURCHASES AND PAY
PROCUREMENT AND RDT&E
(MILLIONS OF 1986 DOLLARS)**

STATE	1987	1988	1989	1990	1991	1992
ALABAMA	878	882	889	894	910	942
ALASKA	47	49	51	52	53	54
ARIZONA	1,582	1,569	1,569	1,585	1,622	1,684
ARKANSAS	360	356	365	382	399	424
CALIFORNIA	25,994	26,033	26,121	26,343	26,949	27,995
COLORADO	1,170	1,206	1,231	1,219	1,227	1,268
CONNECTICUT	4,056	3,883	3,725	3,685	3,737	3,871
DELAWARE	64	67	69	68	68	70
DIST. OF COLUM.	382	418	446	446	450	467
FLORIDA	4,527	4,546	4,568	4,637	4,765	4,953
GEORGIA	1,504	1,451	1,411	1,414	1,436	1,491
HAWAII	89	92	94	96	95	97
IDAHO	11	11	11	12	12	12
ILLINOIS	1,766	1,747	1,749	1,770	1,826	1,903
INDIANA	2,363	2,240	2,166	2,200	2,293	2,394
IOWA	487	487	494	506	526	552
KANSAS	1,231	1,172	1,125	1,102	1,106	1,139
KENTUCKY	183	185	189	193	199	205
LOUISIANA	872	877	871	872	895	937
MAINE	447	460	465	470	484	506
MARYLAND	3,031	3,153	3,261	3,336	3,441	3,598
MASSACHUSETTS	6,060	6,243	6,375	6,371	6,462	6,701
MICHIGAN	1,907	1,864	1,841	1,856	1,916	1,995
MINNESOTA	1,945	1,972	2,005	2,051	2,140	2,248
MISSISSIPPI	1,065	1,033	1,007	1,010	1,028	1,066
MISSOURI	3,721	3,670	3,631	3,655	3,712	3,834
MONTANA	18	18	18	19	19	20
NEBRASKA	74	76	77	78	80	83
NEVADA	32	33	34	34	34	35
NEW HAMPSHIRE	662	676	691	711	741	777
NEW JERSEY	3,093	3,147	3,202	3,235	3,310	3,438
NEW MEXICO	308	324	337	334	335	345
NEW YORK	7,140	7,131	7,144	7,184	7,340	7,619
NORTH CAROLINA	549	560	569	571	583	604
NORTH DAKOTA	20	20	20	20	20	21
OHIO	4,056	4,024	3,994	3,947	3,983	4,118
OKLAHOMA	197	194	193	197	201	208
OREGON	246	243	240	241	246	255
PENNSYLVANIA	3,490	3,495	3,513	3,533	3,604	3,740
RHODE ISLAND	284	291	297	301	309	321
SOUTH CAROLINA	206	203	202	205	211	220
SOUTH DAKOTA	10	10	10	10	11	11
TENNESSEE	664	689	710	716	730	754
TEXAS	5,836	5,831	5,826	5,854	5,957	6,190
UTAH	527	542	554	560	574	596
VERMONT	190	187	188	195	203	212
VIRGINIA	3,935	4,058	4,132	4,158	4,230	4,399
WASHINGTON	3,210	3,233	3,235	3,187	3,197	3,289
WEST VIRGINIA	85	86	87	88	89	92
WISCONSIN	988	955	940	945	978	1,020
WYOMING	5	5	6	6	6	6
TOTAL, US	101,570	101,699	101,948	102,558	104,745	108,778

ESTIMATES OF DIRECT DEFENSE PURCHASES AND PAY
EXCLUDING PROCUREMENT AND RDT&E
(MILLIONS OF 1986 DOLLARS)

STATE	1987	1988	1989	1990	1991	1992
ALABAMA	2,714	2,725	2,757	2,802	2,859	2,914
ALASKA	938	947	968	991	1,013	1,035
ARIZONA	1,868	1,874	1,904	1,953	1,995	2,034
ARKANSAS	974	990	1,011	1,040	1,064	1,087
CALIFORNIA	22,075	22,227	22,699	23,390	24,042	24,618
COLORADO	2,387	2,411	2,454	2,517	2,574	2,626
CONNECTICUT	2,036	2,064	2,137	2,248	2,342	2,419
DELAWARE	342	348	354	363	371	378
DIST. OF COLUM.	1,649	1,656	1,688	1,722	1,768	1,811
FLORIDA	6,836	6,874	6,970	7,144	7,291	7,425
GEORGIA	4,587	4,655	4,758	4,874	4,990	5,097
HAWAII	2,506	2,511	2,545	2,580	2,628	2,679
IDAHO	325	331	336	344	350	356
ILLINOIS	3,258	3,350	3,410	3,493	3,577	3,649
INDIANA	1,738	1,767	1,803	1,860	1,913	1,958
IOWA	426	446	458	478	493	504
KANSAS	1,678	1,690	1,724	1,779	1,829	1,875
KENTUCKY	1,868	1,887	1,916	1,953	1,993	2,031
LOUISIANA	2,155	2,207	2,274	2,356	2,428	2,491
MAINE	848	859	878	901	926	948
MARYLAND	4,655	4,694	4,793	4,918	5,053	5,177
MASSACHUSETTS	2,493	2,544	2,618	2,735	2,834	2,916
MICHIGAN	1,630	1,675	1,716	1,776	1,831	1,875
MINNESOTA	886	923	949	992	1,027	1,055
MISSISSIPPI	2,179	2,200	2,255	2,322	2,389	2,448
MISSOURI	2,753	2,815	2,904	3,010	3,103	3,178
MONTANA	271	277	283	291	298	304
NEBRASKA	821	836	847	865	882	899
NEVADA	562	569	578	594	606	617
NEW HAMPSHIRE	479	484	494	510	523	534
NEW JERSEY	2,867	2,946	3,009	3,100	3,192	3,270
NEW MEXICO	1,247	1,254	1,277	1,304	1,332	1,360
NEW YORK	4,185	4,330	4,460	4,662	4,828	4,964
NORTH CAROLINA	3,564	3,596	3,648	3,730	3,799	3,867
NORTH DAKOTA	403	407	415	426	435	445
OHIO	3,269	3,329	3,397	3,488	3,585	3,669
OKLAHOMA	2,298	2,309	2,336	2,364	2,408	2,451
OREGON	662	681	689	702	717	729
PENNSYLVANIA	3,914	3,988	4,049	4,131	4,234	4,325
RHODE ISLAND	605	613	625	644	662	679
SOUTH CAROLINA	3,004	3,020	3,067	3,131	3,194	3,257
SOUTH DAKOTA	295	301	307	314	322	328
TENNESSEE	1,516	1,553	1,582	1,630	1,670	1,705
TEXAS	10,007	10,113	10,285	10,533	10,756	10,960
UTAH	1,254	1,263	1,277	1,288	1,315	1,341
VERMONT	105	107	109	113	116	118
VIRGINIA	12,182	12,214	12,408	12,662	12,956	13,244
WASHINGTON	4,007	4,030	4,100	4,201	4,306	4,402
WEST VIRGINIA	310	318	323	330	337	343
WISCONSIN	713	751	771	803	828	847
WYOMING	240	245	250	258	264	269
TOTAL, US	134,583	136,202	138,868	142,612	146,246	149,508

**ESTIMATES OF INDIRECT DEFENSE PURCHASES
RESULTING FROM DIRECT DEFENSE PURCHASES
(MILLIONS OF 1986 DOLLARS)**

STATE	1987	1988	1989	1990	1991	1992
ALABAMA	1,997	2,034	2,072	2,163	2,258	2,362
ALASKA	295	301	313	329	342	358
ARIZONA	2,154	2,188	2,232	2,321	2,418	2,540
ARKANSAS	1,079	1,103	1,133	1,192	1,251	1,315
CALIFORNIA	22,220	22,771	23,229	24,114	25,158	26,403
COLORADO	2,075	2,134	2,180	2,254	2,338	2,447
CONNECTICUT	4,090	4,096	4,093	4,204	4,355	4,556
DELAWARE	516	537	560	586	612	643
DIST. OF COLUM.	585	615	647	681	716	758
FLORIDA	4,940	5,109	5,242	5,474	5,734	6,033
GEORGIA	3,115	3,208	3,288	3,441	3,597	3,766
HAWAII	323	341	356	378	399	419
IDAHO	314	330	341	353	368	385
ILLINOIS	6,068	6,174	6,271	6,484	6,707	6,961
INDIANA	3,944	3,948	3,967	4,080	4,226	4,396
IOWA	1,090	1,119	1,144	1,203	1,255	1,306
KANSAS	1,731	1,726	1,724	1,759	1,804	1,874
KENTUCKY	1,641	1,655	1,675	1,722	1,775	1,852
LOUISIANA	2,351	2,418	2,503	2,597	2,681	2,807
MAINE	666	678	684	713	745	778
MARYLAND	3,807	4,002	4,174	4,352	4,557	4,803
MASSACHUSETTS	5,620	5,778	5,899	6,074	6,304	6,599
MICHIGAN	4,881	4,917	4,931	5,081	5,290	5,485
MINNESOTA	2,502	2,586	2,641	2,752	2,888	3,034
MISSISSIPPI	1,541	1,580	1,607	1,664	1,732	1,814
MISSOURI	3,622	3,638	3,641	3,742	3,864	4,023
MONTANA	223	233	240	250	260	271
NEBRASKA	564	588	603	631	660	690
NEVADA	306	317	331	346	363	384
NEW HAMPSHIRE	891	920	944	983	1,031	1,085
NEW JERSEY	4,935	5,083	5,213	5,409	5,632	5,900
NEW MEXICO	669	688	707	732	770	810
NEW YORK	9,910	10,123	10,327	10,703	11,133	11,655
NORTH CAROLINA	2,848	2,959	3,052	3,204	3,364	3,532
NORTH DAKOTA	175	180	186	195	203	212
OHIO	7,404	7,482	7,548	7,735	7,971	8,266
OKLAHOMA	1,581	1,600	1,640	1,700	1,756	1,833
OREGON	1,101	1,126	1,140	1,179	1,221	1,269
PENNSYLVANIA	6,856	6,973	7,098	7,310	7,552	7,874
RHODE ISLAND	599	617	636	668	702	738
SOUTH CAROLINA	1,733	1,797	1,856	1,942	2,037	2,140
SOUTH DAKOTA	208	217	225	236	247	258
TENNESSEE	2,387	2,452	2,502	2,586	2,678	2,792
TEXAS	10,573	10,822	11,115	11,511	11,900	12,407
UTAH	945	956	965	991	1,028	1,079
VERMONT	398	401	409	425	446	470
VIRGINIA	4,107	4,267	4,423	4,642	4,868	5,126
WASHINGTON	3,472	3,493	3,496	3,572	3,679	3,836
WEST VIRGINIA	910	895	937	980	1,022	1,060
WISCONSIN	2,561	2,614	2,648	2,736	2,845	2,968
WYOMING	267	274	287	294	302	317
TOTAL, US	148,789	152,063	155,078	160,669	167,047	174,690

**ESTIMATES OF INDIRECT DEFENSE PURCHASES
RESULTING FROM DIRECT DEFENSE PAY
(MILLIONS OF 1986 DOLLARS)**

STATE	1987	1988	1989	1990	1991	1992
ALABAMA	1,544	1,514	1,505	1,499	1,500	1,509
ALASKA	205	197	196	194	192	193
ARIZONA	1,299	1,289	1,302	1,315	1,335	1,362
ARKANSAS	1,030	1,004	1,001	999	1,003	1,012
CALIFORNIA	11,677	11,591	11,637	11,667	11,764	11,927
COLORADO	1,623	1,616	1,632	1,633	1,647	1,676
CONNECTICUT	1,584	1,578	1,592	1,601	1,619	1,647
DELAWARE	436	431	434	433	434	439
DIST. OF COLUM.	491	480	483	483	483	487
FLORIDA	4,815	4,778	4,788	4,799	4,842	4,915
GEORGIA	2,948	2,924	2,930	2,928	2,939	2,968
HAWAII	472	465	462	458	462	469
IDAHO	412	404	403	395	392	394
ILLINOIS	5,272	5,167	5,131	5,089	5,062	5,063
INDIANA	2,443	2,384	2,355	2,340	2,338	2,347
IOWA	1,303	1,253	1,237	1,243	1,239	1,234
KANSAS	1,021	1,009	1,007	999	999	1,008
KENTUCKY	1,363	1,329	1,314	1,298	1,291	1,298
LOUISIANA	1,561	1,544	1,554	1,548	1,546	1,566
MAINE	495	488	489	487	489	493
MARYLAND	1,858	1,828	1,824	1,817	1,816	1,827
MASSACHUSETTS	2,916	2,858	2,825	2,790	2,778	2,785
MICHIGAN	4,458	4,372	4,275	4,247	4,273	4,296
MINNESOTA	2,057	2,013	2,001	1,989	1,986	1,995
MISSISSIPPI	874	856	848	842	842	847
MISSOURI	2,362	2,321	2,298	2,282	2,281	2,289
MONTANA	267	268	270	266	266	269
NEBRASKA	757	739	735	728	725	727
NEVADA	448	444	450	456	467	480
NEW HAMPSHIRE	446	443	443	441	442	446
NEW JERSEY	3,814	3,739	3,722	3,702	3,703	3,735
NEW MEXICO	487	485	487	484	491	502
NEW YORK	8,375	8,207	8,172	8,120	8,104	8,152
NORTH CAROLINA	3,381	3,322	3,320	3,309	3,306	3,329
NORTH DAKOTA	236	230	229	226	226	228
OHIO	4,893	4,771	4,685	4,632	4,623	4,636
OKLAHOMA	1,157	1,144	1,143	1,139	1,143	1,161
OREGON	1,080	1,067	1,055	1,041	1,039	1,044
PENNSYLVANIA	5,190	5,092	5,059	5,022	5,017	5,047
RHODE ISLAND	475	466	468	473	480	489
SOUTH CAROLINA	1,492	1,473	1,476	1,474	1,478	1,494
SOUTH DAKOTA	307	300	302	298	298	301
TENNESSEE	2,147	2,116	2,107	2,091	2,091	2,106
TEXAS	7,275	7,183	7,192	7,163	7,177	7,256
UTAH	631	626	630	628	634	647
VERMONT	212	209	209	209	210	212
VIRGINIA	2,641	2,602	2,606	2,607	2,615	2,637
WASHINGTON	1,646	1,618	1,613	1,608	1,620	1,642
WEST VIRGINIA	605	582	582	582	584	586
WISCONSIN	2,335	2,289	2,273	2,249	2,241	2,252
WYOMING	208	207	212	209	209	214
TOTAL, US	107,025	105,317	104,962	104,532	104,742	105,638

SECTION II: PROJECTIONS FOR SELECTED INDUSTRIES

These tables present projected purchases for defense and defense-related purchases from selected manufacturing industries. Projections for fifty such industries are included. A separate table is provided for each industry. The industries were chosen on the basis of their projected volume of sales in the defense market over the forecast period.

The upper portion of each table contains projections of direct and indirect defense purchases for Calendar Years 1986 to 1992. The center portion of the table indicates the amount of indirect defense purchases estimated to result from DoD purchases from each of eleven industrial groupings. At the bottom of the table, total purchases resulting from foreign military sales are shown.

The industrial sectors reported in Section II are at the 4-digit SIC level; the industrial sectors shown in the state tables of Section II, however, are aggregates (at the 3-digit level) of the 4-digit SIC industries. Industrial projections are made for 429 separate industries. (A mapping from the industry numbers shown in each table to the corresponding Standard Industrial Code may be found in Defense Purchasing An Introduction to DEIMS, available from the DoD point of contract listed in the front of this volume.) For the purposes of the state-level reports, these are grouped into 79 industrial sectors. Thus, industrial sector 60, "Aircraft and Parts", used in the state tables, includes three industries: industry 351, "Aircraft"; industry 352, "Aircraft Engines and Engine Parts"; and industry 353, "Aircraft Parts and Equipment, NEC."

PROJECTED DEFENSE PURCHASES OF
50. COMPLETE GUIDED MISSILES, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	8,467	8,786	9,105	9,670	10,314	10,847	11,403	5.35
INDIRECT	212	232	252	287	328	366	413	12.23
TOTAL	8,679	9,018	9,357	9,957	10,642	11,213	11,816	5.55

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	174	191	209	241	277	312	353	13.07
AMMUNITION	0	0	0	0	0	0	0	N/A
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	1	1	1	1	1	1	1	0.00
COMMUNICATIONS EQUIPMENT	17	19	21	23	25	28	31	10.29
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	14	15	15	16	18	19	20	5.92
AIRCRAFT ENGINES AND PARTS	2	2	2	2	2	2	2	0.00
SHIPBUILDING	2	3	3	3	3	4	4	5.92
ALL OTHER	2	1	1	1	2	0	2	14.87
TOTAL INDIRECT	212	232	252	287	328	366	413	12.23

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	385	349	315	297	274	256	241	-7.14
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

51. AMMUNITION, EX SMALL ARMS, NEC. 1986-1992

(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	3,189	3,111	2,904	2,871	2,940	3,180	3,406	1.83
INDIRECT	543	551	552	564	596	668	740	6.08
TOTAL	3,732	3,662	3,456	3,435	3,536	3,848	4,146	2.51

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	1	1	1	1	1	1	1	0.00
AMMUNITION	519	525	524	536	566	635	705	6.07
TANKS AND TANK COMPONENTS	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	7	7	7	7	7	7	8	2.71
COMMUNICATIONS EQUIPMENT	14	15	16	17	18	20	22	7.96
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	2	2	2	2	2	2	2	0.00
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	0	0	0	0	0	0	0	N/A
ALL OTHER	1	0	1	0	1	2	1	N/A

TOTAL INDIRECT	543	551	552	564	596	668	740	6.08
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	523	494	464	453	434	414	395	-4.37
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

52. TANKS & TANK COMPONENT, 1986-1992

(In millions of 1986 dollars)

[illegible]

DEFENSE PURCHASES

[illegible]

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

[illegible]

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	474	432	393	365	341	324	309	-6.48
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
55. OTHER ORDNANCE & ACCESSORIES, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	2,054	1,986	1,888	1,823	1,797	1,792	1,815	-1.78
INDIRECT	244	241	312	306	310	329	364	8.60
TOTAL	2,298	2,227	2,200	2,129	2,107	2,121	2,179	-0.43

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	0	0	0	0	0	0	0	N/A
AMMUNITION	21	21	25	25	26	29	33	9.46
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	215	212	275	270	273	288	317	8.38
COMMUNICATIONS EQUIPMENT	0	0	1	1	1	1	1	N/A
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	5	5	7	7	7	8	9	12.47
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	0	0	0	0	0	0	0	N/A
ALL OTHER	3	3	4	3	3	3	4	5.92

TOTAL INDIRECT	244	241	312	306	310	329	364	8.60
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	349	335	332	328	324	316	309	-1.60
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF
145 PAPER MILLS, EXC BLDG PAPER, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	12	11	13	14	16	17	17
INDIRECT	814	848	877	908	946	990	1,040
TOTAL	826	859	890	922	962	1,007	1,057

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	15	16	16	17	19	21	23
AMMUNITION	18	18	17	16	17	19	20
TANKS AND TANK COMPONENTS	3	2	2	2	2	2	2
OTHER ORDNANCE	6	6	6	6	6	6	6
COMMUNICATIONS EQUIPMENT	122	130	132	136	143	151	160
OTHER ELECTRONIC EQUIPMENT	91	100	105	110	117	126	135
MOTOR VEHICLES	11	11	10	10	10	11	11
AIRCRAFT AND PARTS	52	53	52	51	52	53	55
AIRCRAFT ENGINES AND PARTS	16	16	15	15	15	16	16
SHIPBUILDING	20	21	21	21	21	22	23
ALL OTHER	460	475	501	524	544	563	589
TOTAL INDIRECT	814	848	877	908	946	990	1,040

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	38	38	36	36	36	35	34
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Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF

155 PAPERBOARD CONTAINERS & BOXES, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992 1987-1992

SUMMARY

DEFENSE PURCHASES	27	25	30	31	36	38	40	9 86
DIRECT	749	762	781	792	824	863	905	3 50
INDIRECT								
TOTAL	776	787	811	823	860	901	945	3 73

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	13	14	14	15	16	18	19	6 30
AMMUNITION	42	42	39	38	39	43	46	1 84
TANKS AND TANK COMPONENTS	4	3	3	2	2	2	2	-7 79
OTHER ORDNANCE	10	10	9	9	9	9	9	-2 09
COMMUNICATIONS EQUIPMENT	159	166	167	171	179	188	198	3 59
OTHER ELECTRONIC EQUIPMENT	83	91	95	99	104	112	120	5 69
MOTOR VEHICLES	18	17	16	15	16	16	17	0 00
AIRCRAFT AND PARTS	47	47	46	45	46	46	48	0 42
AIRCRAFT ENGINES AND PARTS	14	14	13	13	13	13	14	0 00
SHIPBUILDING	18	18	18	18	18	19	20	2 13
ALL OTHER	341	340	361	367	382	397	412	3 92

TOTAL INDIRECT	749	762	781	792	824	863	905	3 50
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	56	54	51	49	48	46	45	-3 58
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF
161 COMMERCIAL PRINTING, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES	15	15	11	11	12	13	14	1 37
DIRECT	644	676	725	763	781	804	839	4 42
INDIRECT								
TOTAL	659	691	736	774	793	817	853	4 30

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	8	8	8	9	10	11	12	8 45
AMMUNITION	8	8	7	7	8	8	9	2 38
TANKS AND TANK COMPONENTS	2	1	1	1	1	1	1	0 00
OTHER ORDNANCE	4	4	4	4	4	4	4	0 00
COMMUNICATIONS EQUIPMENT	59	62	64	66	70	74	79	4 97
OTHER ELECTRONIC EQUIPMENT	27	29	31	33	36	39	41	7 17
MOTOR VEHICLES	6	6	6	6	6	6	6	0 00
AIRCRAFT AND PARTS	32	33	33	33	33	34	35	1 10
AIRCRAFT ENGINES AND PARTS	10	10	9	9	10	10	10	0 00
SHIPBUILDING	11	12	12	12	12	12	13	1 61
ALL OTHER	477	503	550	583	591	605	629	4 57
TOTAL INDIRECT	644	676	725	763	781	804	839	4 42

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	22	22	21	20	20	19	19	-2 89
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Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF

168 INORGANIC & ORGANIC CHEM 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987 1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES
DIRECT
INDIRECT

1,805	1,932	2,035	2,165	2,256	2,338	2,395	4.39
3,478	3,440	3,552	3,688	3,826	3,967	4,142	3.78
5,283	5,372	5,587	5,853	6,082	6,305	6,537	4.00

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	58	57	59	64	70	76	83	7.81
AMMUNITION	68	64	60	60	62	67	72	2.38
TANKS AND TANK COMPONENTS	22	20	18	15	15	14	14	6.80
OTHER ORDNANCE	27	25	25	25	25	25	25	0.00
COMMUNICATIONS EQUIPMENT	511	517	528	554	587	612	649	4.55
OTHER ELECTRONIC EQUIPMENT	281	294	308	327	346	369	395	6.08
MOTOR VEHICLES	88	80	76	75	76	79	82	0.50
AIRCRAFT AND PARTS	223	216	213	211	215	217	225	0.82
AIRCRAFT ENGINES AND PARTS	67	64	60	59	60	62	64	0.00
SHIPBUILDING	126	120	120	121	123	126	132	1.92
ALL OTHER	2,007	1,983	2,085	2,177	2,252	2,320	2,401	3.90

TOTAL INDIRECT

3,478	3,440	3,552	3,688	3,826	3,967	4,142	3.78
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	251	237	224	223	215	206	197	3.63
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Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF
178 PLASTIC MATLS & RESINS, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES
DIRECT
INDIRECT

92 95 105 104 89 76 70 5 92
1,440 1,482 1,523 1,603 1,679 1,757 1,863 4 68

TOTAL

1,532 1,577 1,628 1,707 1,768 1,833 1,933 4 15

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES
AMMUNITION
TANKS AND TANK COMPONENTS
OTHER ORDNANCE
COMMUNICATIONS EQUIPMENT
OTHER ELECTRONIC EQUIPMENT
MOTOR VEHICLES
AIRCRAFT AND PARTS
AIRCRAFT ENGINES AND PARTS
SHIPBUILDING
ALL OTHER

35 35 37 40 44 48 53 8 65
37 36 34 34 35 38 42 3 13
13 12 11 10 9 9 10 0 00
10 10 9 9 9 10 10 0 00
338 354 362 384 405 426 453 5 06
190 207 218 234 250 267 289 6 90
50 47 45 45 46 48 50 1 25
113 114 112 113 115 117 122 1 37
22 21 20 20 21 21 22 0 93
43 43 43 44 45 46 49 2 65
589 603 632 670 700 727 764 4 85

TOTAL INDIRECT

1,440 1,482 1,523 1,603 1,679 1,757 1,863 4 68

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)

111 107 101 102 100 98 96 -2 15

Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF

188 PETROLEUM REFINING, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	2,562	2,560	2,680	2,780	2,914	3,012	3,103
INDIRECT	2,605	2,663	2,804	2,864	2,967	3,091	3,215
TOTAL	5,167	5,223	5,484	5,652	5,881	6,103	6,318
							3 88
							3 84

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	38	40	41	43	47	51	56	6 96
AMMUNITION	64	65	61	60	61	67	72	2 07
TANKS AND TANK COMPONENTS	13	12	11	9	9	9	9	-5 59
OTHER ORDNANCE	22	22	22	21	21	21	22	0 00
COMMUNICATIONS EQUIPMENT	261	280	285	292	304	321	338	3 84
OTHER ELECTRONIC EQUIPMENT	148	165	174	182	191	206	220	5 92
MOTOR VEHICLES	37	36	34	33	33	35	36	0 00
AIRCRAFT AND PARTS	174	180	177	173	174	176	181	0 11
AIRCRAFT ENGINES AND PARTS	87	88	84	81	82	84	87	-0 23
SHIPBUILDING	87	89	89	88	89	92	96	1 53
ALL OTHER	1,674	1,686	1,826	1,882	1,956	2,029	2,098	4 47
TOTAL INDIRECT	2,605	2,663	2,804	2,864	2,967	3,091	3,215	3 84

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	104	102	96	92	87	83	79	-4 98
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Source: Defense Economic Impact Modeling System (DEIMS). May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
197. MISC PLASTIC PROD., 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	3	3	3	4	4	4	4	5.92
INDIRECT	2,580	2,731	2,824	2,954	3,104	3,292	3,497	5.07
TOTAL	2,583	2,734	2,827	2,958	3,108	3,296	3,501	5.07

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	64	67	69	75	82	91	100	8.34
AMMUNITION	31	31	30	30	31	34	37	3.60
TANKS AND TANK COMPONENTS	8	8	7	6	6	6	6	-5.59
OTHER ORDNANCE	20	20	20	19	19	20	21	0.98
COMMUNICATIONS EQUIPMENT	644	691	709	744	783	830	882	5.00
OTHER ELECTRONIC EQUIPMENT	424	470	495	526	560	606	653	6.80
MOTOR VEHICLES	99	97	92	91	93	98	102	1.01
AIRCRAFT AND PARTS	189	194	192	191	196	201	209	1.50
AIRCRAFT ENGINES AND PARTS	33	33	32	31	32	33	35	1.18
SHIPBUILDING	50	51	51	52	53	56	59	2.96
ALL OTHER	1,018	1,069	1,127	1,189	1,249	1,317	1,393	5.44
TOTAL INDIRECT	2,580	2,731	2,824	2,954	3,104	3,292	3,497	5.07

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	198	197	189	190	187	185	182	-1.57
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
223. BLAST FURNACES & STEEL MILLS, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES	166	162	156	144	130	114	110	-7.45
DIRECT	4,503	4,266	4,192	4,118	4,246	4,400	4,416	0.69
INDIRECT								
TOTAL	4,669	4,428	4,348	4,262	4,376	4,514	4,526	0.44

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	57	54	55	57	63	68	71	5.63
AMMUNITION	237	221	206	201	208	227	235	1.24
TANKS AND TANK COMPONENTS	134	116	103	88	85	81	79	-7.40
OTHER ORDNANCE	55	51	49	47	47	47	47	-1.62
COMMUNICATIONS EQUIPMENT	483	474	476	481	506	532	539	2.60
OTHER ELECTRONIC EQUIPMENT	207	211	219	225	240	257	265	4.66
MOTOR VEHICLES	319	286	268	257	263	273	273	-0.93
AIRCRAFT AND PARTS	330	311	300	288	294	298	294	-1.12
AIRCRAFT ENGINES AND PARTS	193	181	169	162	167	171	170	-1.25
SHIPBUILDING	742	699	692	676	692	714	718	0.54
ALL OTHER	1,746	1,662	1,655	1,636	1,681	1,732	1,725	0.75
TOTAL INDIRECT	4,503	4,266	4,192	4,118	4,246	4,400	4,416	0.69

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	253	224	210	200	190	180	166	-5.82
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
228. IRON & STEEL FOUNDRIES, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	7	7	8	7	6	6	5	-6.51
INDIRECT	645	684	704	704	724	740	749	1.83
TOTAL	652	691	712	711	730	746	754	1.76

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	8	9	10	10	11	12	12	5.92
AMMUNITION	10	10	10	10	10	11	11	1.92
TANKS AND TANK COMPONENTS	15	15	14	12	11	11	11	6.01
OTHER ORDNANCE	11	11	11	11	11	11	11	0.00
COMMUNICATIONS EQUIPMENT	52	58	61	63	66	68	70	3.83
OTHER ELECTRONIC EQUIPMENT	24	27	30	32	34	36	37	6.50
MOTOR VEHICLES	79	81	81	79	81	83	83	0.49
AIRCRAFT AND PARTS	47	50	50	49	50	50	50	0.00
AIRCRAFT ENGINES AND PARTS	62	66	65	63	65	66	66	0.00
SHIPBUILDING	34	36	37	37	38	39	39	1.61
ALL OTHER	303	321	335	338	347	353	359	2.26
TOTAL INDIRECT	645	684	704	704	724	740	749	1.83

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	43	43	42	41	39	37	34	-4.59
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

232. PRIMARY COPPER, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

	0	0	0	0	0	0	0	N/A
DIRECT	663	652	652	655	673	691	719	1.98
INDIRECT								

TOTAL

	663	652	652	655	673	691	719	1.98
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INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	14	13	14	14	16	17	18	6.72
AMMUNITION	19	18	17	16	16	18	19	1.09
TANKS AND TANK COMPONENTS	7	6	5	5	4	4	4	-7.79
OTHER ORDNANCE	6	6	6	5	5	5	6	0.00
COMMUNICATIONS EQUIPMENT	130	131	132	135	141	147	154	3.29
OTHER ELECTRONIC EQUIPMENT	63	66	68	70	74	78	83	4.69
MOTOR VEHICLES	15	14	13	13	13	14	14	0.00
AIRCRAFT AND PARTS	54	52	51	49	50	50	52	0.00
AIRCRAFT ENGINES AND PARTS	22	21	19	19	19	20	20	-0.97
SHIPBUILDING	27	26	26	26	26	27	28	1.49
ALL OTHER	306	299	301	303	309	311	321	1.43

TOTAL INDIRECT

	663	652	652	655	673	691	719	1.98
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	37	34	32	31	29	28	27	-4.51
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Source: Defense Economic Impact Modeling System (DEIMS). May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
235. PRIMARY ALUMINUM, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
SUMMARY								
DEFENSE PURCHASES								
DIRECT	2	2	2	2	2	2	2	0.00
INDIRECT	1,112	1,089	1,067	1,055	1,074	1,107	1,150	1.10
TOTAL	1,114	1,091	1,069	1,057	1,076	1,109	1,152	1.09
INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR								
MISSILES	22	21	21	23	25	26	29	6.67
AMMUNITION	32	31	29	28	29	31	34	1.86
TANKS AND TANK COMPONENTS	17	15	13	11	11	11	11	-6.01
OTHER ORDNANCE	18	17	17	16	16	16	16	-1.21
COMMUNICATIONS EQUIPMENT	175	176	178	181	189	199	209	3.50
OTHER ELECTRONIC EQUIPMENT	67	71	74	76	80	86	92	5.32
MOTOR VEHICLES	33	30	28	27	28	29	30	0.00
AIRCRAFT AND PARTS	164	160	155	150	152	154	158	-0.25
AIRCRAFT ENGINES AND PARTS	131	126	118	114	115	118	121	-0.81
SHIPBUILDING	43	41	41	40	41	42	44	1.42
ALL OTHER	410	401	393	389	388	395	406	0.25
TOTAL INDIRECT	1,112	1,089	1,067	1,055	1,074	1,107	1,150	1.10
FOREIGN MILITARY SALES (FMS)								
FMS (DIRECT PLUS INDIRECT)	61	55	52	49	46	43	40	-6.17

Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
236. PRIMARY NONFER METALS, NEC. 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	3	3	3	3	2	2	-7.79
INDIRECT	783	784	772	785	806	835	2.22
TOTAL	786	787	775	788	808	877	2.19

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	20	20	20	21	23	25	28	6.96
AMMUNITION	15	14	13	13	13	15	16	2.71
TANKS AND TANK COMPONENTS	7	7	6	5	5	5	5	-6.51
OTHER ORDNANCE	9	8	8	8	8	8	8	0.00
COMMUNICATIONS EQUIPMENT	222	229	229	238	248	260	275	3.73
OTHER ELECTRONIC EQUIPMENT	70	73	74	78	81	87	93	4.96
MOTOR VEHICLES	14	13	12	11	11	12	12	-1.59
AIRCRAFT AND PARTS	74	72	69	68	69	70	72	0.00
AIRCRAFT ENGINES AND PARTS	34	33	30	29	30	30	32	-0.61
SHIPBUILDING	36	35	34	34	35	36	38	1.66
ALL OTHER	282	280	277	280	283	287	296	1.12
TOTAL INDIRECT	783	784	772	785	806	835	875	2.22

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	8	6	7	6	5	5	4	-7.79
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
239. ALUMINUM ROLLING & DRAWING, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

DIRECT	0	0	0	0	0	0	0	N/A
INDIRECT	1,102	1,105	1,099	1,096	1,135	1,190	1,257	2.61
TOTAL	1,102	1,105	1,099	1,096	1,135	1,190	1,257	2.61

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	23	23	24	25	28	30	33	7.49
AMMUNITION	47	46	44	44	46	50	55	3.64
TANKS AND TANK COMPONENTS	28	25	23	20	19	19	19	-5.34
OTHER ORDNANCE	22	21	21	20	21	21	22	0.93
COMMUNICATIONS EQUIPMENT	207	215	220	227	240	256	272	4.82
OTHER ELECTRONIC EQUIPMENT	73	79	84	88	94	102	111	7.04
MOTOR VEHICLES	30	28	26	26	27	29	31	2.06
AIRCRAFT AND PARTS	221	221	220	215	221	226	236	1.32
AIRCRAFT ENGINES AND PARTS	31	31	29	28	29	30	32	0.64
SHIPBUILDING	45	45	45	45	46	49	51	2.53
ALL OTHER	375	371	363	358	364	378	395	1.26
TOTAL INDIRECT	1,102	1,105	1,099	1,096	1,135	1,190	1,257	2.61

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	79	75	71	69	66	65	63	-3.43
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
241. NONFER WIRE DRAWING&INSULATIN, 1986-1992

(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES

DIRECT	0	0	0	0	0	0	0	0
INDIRECT	985	1,016	1,029	1,053	1,072	1,101	1,160	N/A
TOTAL	985	1,016	1,029	1,053	1,072	1,101	1,160	2.69

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	29	30	31	33	36	38	42	6.96
AMMUNITION	9	9	8	8	8	9	10	2.13
TANKS AND TANK COMPONENTS	18	17	15	13	12	12	12	-6.73
OTHER ORDNANCE	5	5	5	5	4	4	5	0.00
COMMUNICATIONS EQUIPMENT	237	249	253	263	271	281	297	3.59
OTHER ELECTRONIC EQUIPMENT	172	188	197	207	215	227	244	5.35
MOTOR VEHICLES	12	11	11	10	10	11	11	0.00
AIRCRAFT AND PARTS	88	90	88	87	87	87	90	0.00
AIRCRAFT ENGINES AND PARTS	14	14	13	13	13	13	14	0.00
SHIPBUILDING	46	46	46	46	46	47	49	1.27
ALL OTHER	355	357	362	368	370	372	386	1.57
TOTAL INDIRECT	985	1,016	1,029	1,053	1,072	1,101	1,160	2.69

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	75	73	70	70	67	64	63	-2.90
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
257. SCREW MACHINE PRODUCTS, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	Avg. Ann % Growth 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	319	319	333	346	360	371	381	3.62
INDIRECT	942	942	926	922	935	960	993	1.06
TOTAL	1,261	1,261	1,259	1,268	1,295	1,331	1,374	1.73

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	21	21	21	22	24	26	27	5.15
AMMUNITION	14	13	12	12	12	13	14	1.49
TANKS AND TANK COMPONENTS	7	7	6	5	5	5	5	-6.51
OTHER ORDNANCE	9	9	8	8	8	8	8	-2.33
COMMUNICATIONS EQUIPMENT	211	216	217	222	229	238	248	2.80
OTHER ELECTRONIC EQUIPMENT	62	66	68	71	74	79	84	4.94
MOTOR VEHICLES	47	44	41	40	40	41	42	-0.93
AIRCRAFT AND PARTS	159	157	153	149	149	149	152	-0.65
AIRCRAFT ENGINES AND PARTS	32	32	29	28	29	29	30	-1.28
SHIPBUILDING	40	39	39	38	38	39	40	0.51
ALL OTHER	340	338	332	327	327	333	343	0.29
TOTAL INDIRECT	942	942	926	922	935	960	993	1.06

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	67	63	59	56	53	50	47	-5.69
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF

259. OTHER METAL STAMPINGS, 1986-1992

(In millions of 1986 dollars)

1986 1987 1988 1989 1990 1991 1992 1993
AVG ANN
%GROWTH
1987-1992

SUMMARY

DEFENSE PURCHASES

DIRECT	0	0	0	0	0	0	0	N/A
INDIRECT	873	885	893	905	936	977	1,029	3.06
TOTAL	873	885	893	905	936	977	1,029	3.06

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	22	22	23	24	26	28	31	7.10
AMMUNITION	25	24	22	22	22	24	26	1.61
TANKS AND TANK COMPONENTS	7	6	6	5	5	5	5	-3.58
OTHER ORDNANCE	9	9	9	9	9	9	9	0.00
COMMUNICATIONS EQUIPMENT	196	201	203	208	218	229	243	3.87
OTHER ELECTRONIC EQUIPMENT	179	191	199	208	219	234	250	5.53
MOTOR VEHICLES	9	8	8	7	8	8	8	0.00
AIRCRAFT AND PARTS	83	82	81	79	79	80	83	0.24
AIRCRAFT ENGINES AND PARTS	23	22	21	20	20	21	21	-0.93
SHIPBUILDING	27	26	26	26	26	27	28	1.49
ALL OTHER	293	294	295	297	304	312	325	2.03
TOTAL INDIRECT	873	885	893	905	936	977	1,029	3.06

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	76	73	70	69	68	66	65	-2.29
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

264. PLATING & POLISHING, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987 1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

DIRECT	0	0	0	0	0	0	0	N/A
INDIRECT	754	768	775	779	802	837	885	2 88
TOTAL	754	768	775	779	802	837	885	2 88

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	24	24	24	25	28	30	33	6 58
AMMUNITION	15	15	14	14	14	15	16	1 30
TANKS AND TANK COMPONENTS	2	2	2	2	1	1	1	-12 94
OTHER ORDNANCE	15	14	14	13	13	13	14	0 00
COMMUNICATIONS EQUIPMENT	321	330	334	338	351	368	390	3 40
OTHER ELECTRONIC EQUIPMENT	127	135	141	146	152	162	174	5 21
MOTOR VEHICLES	16	15	14	13	13	14	14	-1 37
AIRCRAFT AND PARTS	68	67	65	63	64	64	67	0 00
AIRCRAFT ENGINES AND PARTS	10	9	9	8	8	8	9	0 00
SHIPBUILDING	11	11	11	11	11	11	12	1 76
ALL OTHER	145	146	147	146	147	151	155	1 20
TOTAL INDIRECT	754	768	775	779	802	837	885	2 88

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	74	70	66	64	61	59	58	-3 69
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
268 PIPE, VALVES & PIPE FITTINGS, 1986-1992

(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	Avg Ann % Growth 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	105	104	105	106	109	114	118	2.56
INDIRECT	523	523	542	568	602	634	668	5.02
TOTAL	628	627	647	674	711	748	786	4.62

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	3	3	3	4	4	4	5	10.76
AMMUNITION	5	5	5	5	5	6	6	3.71
TANKS AND TANK COMPONENTS	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	2	2	2	2	2	2	2	0.00
COMMUNICATIONS EQUIPMENT	22	23	23	24	26	27	29	4.75
OTHER ELECTRONIC EQUIPMENT	10	11	12	13	14	15	16	7.78
MOTOR VEHICLES	5	5	5	5	5	5	5	0.00
AIRCRAFT AND PARTS	15	15	15	15	15	15	16	1.30
AIRCRAFT ENGINES AND PARTS	14	14	13	13	13	14	14	0.00
SHIPBUILDING	93	93	94	94	97	101	106	2.65
ALL OTHER	353	351	369	392	420	444	468	5.92
TOTAL INDIRECT	523	523	542	568	602	634	668	5.02

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	16	15	14	14	14	13	13	-2.82
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
369 PHOTOGRAPHIC EQUIP & SUPPLIES, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES						
DIRECT	251	261	275	279	289	314
INDIRECT	404	412	420	431	447	468
TOTAL	655	673	695	710	736	782

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	15	15	16	16	18	21
AMMUNITION	23	23	21	21	22	26
TANKS AND TANK COMPONENTS	1	1	1	1	1	1
OTHER ORDNANCE	3	3	3	3	3	3
COMMUNICATIONS EQUIPMENT	58	60	62	63	66	74
OTHER ELECTRONIC EQUIPMENT	17	19	20	21	22	26
MOTOR VEHICLES	3	3	3	3	3	3
AIRCRAFT AND PARTS	41	41	41	40	40	42
AIRCRAFT ENGINES AND PARTS	12	12	11	11	11	12
SHIPBUILDING	8	8	8	8	9	9
ALL OTHER	223	227	234	244	252	275

TOTAL INDIRECT 404 412 420 431 447 468 492 511

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT) 21 20 19 19 18 17 17 3 20

Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF

271 STEAM ENGINES & TURBINES, 1986-1992

(In millions of 1986 dollars)

AVG. ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

DIRECT
INDIRECT

906	880	863	818	765	716	704	-4.36
153	151	150	160	169	182	185	4.15
1,059	1,031	1,013	978	934	898	889	-2.92

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	1	1	1	1	1	1	0.00
AMMUNITION	1	1	1	1	1	1	0.00
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	6	6	6	7	7	9	8.45
OTHER ELECTRONIC EQUIPMENT	2	2	2	3	3	4	14.87
MOTOR VEHICLES	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	3	3	3	3	4	4	5.92
AIRCRAFT ENGINES AND PARTS	2	2	1	2	2	2	0.00
SHIPBUILDING	66	65	65	69	74	84	5.26
ALL OTHER	71	70	70	73	76	79	2.45

TOTAL INDIRECT

153	151	150	160	169	182	185	4.15
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	58	55	50	49	46	44	41	-5.71
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
272. INTERNAL COMBUS ENGINES, NEC, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	317	318	331	357	386	410	428
INDIRECT	464	437	431	430	439	455	475
TOTAL	781	755	762	787	825	865	903

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	3	3	3	3	3	4	4	5.92
AMMUNITION	3	3	3	3	3	3	3	0.00
TANKS AND TANK COMPONENTS	18	16	14	12	11	11	11	-7.22
OTHER ORDNANCE	10	9	9	8	8	8	8	-2.33
COMMUNICATIONS EQUIPMENT	19	18	18	19	20	21	22	4.10
OTHER ELECTRONIC EQUIPMENT	8	8	8	9	9	10	11	6.58
MOTOR VEHICLES	38	34	31	30	30	32	33	-0.60
AIRCRAFT AND PARTS	12	11	11	11	11	11	11	0.00
AIRCRAFT ENGINES AND PARTS	7	7	6	6	6	6	6	-3.04
SHIPBUILDING	110	103	102	100	101	104	109	1.14
ALL OTHER	236	225	226	229	237	245	257	2.70
TOTAL INDIRECT	464	437	431	430	439	455	475	1.68

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	28	25	23	22	20	19	18	-6.36
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
275. CONSTRUCTION MACHINERY, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	337	346	357	371	391	419	445	5.16
INDIRECT	342	335	330	333	344	357	371	2.06
TOTAL	679	681	687	704	735	776	816	3.68

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	2	2	2	2	3	3	3	8.45
AMMUNITION	4	4	4	3	4	4	4	0.00
TANKS AND TANK COMPONENTS	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	1	1	1	1	1	1	1	0.00
COMMUNICATIONS EQUIPMENT	20	20	19	20	21	22	23	2.83
OTHER ELECTRONIC EQUIPMENT	7	7	7	7	8	8	9	5.15
MOTOR VEHICLES	6	6	5	5	5	5	5	-3.58
AIRCRAFT AND PARTS	9	9	8	9	8	8	9	0.00
AIRCRAFT ENGINES AND PARTS	4	4	4	3	4	4	4	0.00
SHIPBUILDING	107	103	100	98	99	101	105	0.39
ALL OTHER	181	178	179	185	190	200	207	3.06
TOTAL INDIRECT	342	335	330	333	344	357	371	2.06

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	16	15	13	12	11	10	9	-9.71
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
281. INDUSTRY TRUCKS & TRACTORS, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	999	1,071	1,065	1,055	1,057	1,124	1,171
INDIRECT	86	91	92	93	97	103	109
TOTAL	1,085	1,162	1,157	1,148	1,154	1,227	1,280
							1.95
							1.80
							3.68

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	0	0	0	0	0	0	1	N/A
AMMUNITION	1	1	1	1	1	1	1	0.00
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	3	3	3	3	3	4	4	5.92
OTHER ELECTRONIC EQUIPMENT	1	1	1	2	2	2	2	14.87
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	2	2	2	2	2	2	2	0.00
AIRCRAFT ENGINES AND PARTS	1	1	1	1	1	1	1	0.00
SHIPBUILDING	1	1	1	1	1	1	1	0.00
ALL OTHER	76	81	82	82	86	91	96	3.46
TOTAL INDIRECT	86	91	92	93	97	103	109	3.68

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	45	43	39	37	35	33	31	-6.33
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

282. MACH TOOLS, METAL CUTTING, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES	826	826	816	808	791	786	813	-0.32
DIRECT	191	190	185	181	184	191	200	1.03
INDIRECT								
TOTAL	1,017	1,016	1,001	989	975	977	1,013	-0.06

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	4	4	4	4	5	5	5	4.56
AMMUNITION	10	10	9	9	9	10	11	1.92
TANKS AND TANK COMPONENTS	2	2	2	2	2	1	1	-12.94
OTHER ORDNANCE	8	8	8	7	7	7	8	0.00
COMMUNICATIONS EQUIPMENT	11	11	11	12	12	13	14	4.94
OTHER ELECTRONIC EQUIPMENT	8	9	9	10	10	11	12	5.92
MOTOR VEHICLES	4	3	3	3	3	3	3	0.00
AIRCRAFT AND PARTS	29	28	27	26	27	28	29	0.70
AIRCRAFT ENGINES AND PARTS	18	17	16	16	16	17	17	0.00
SHIPBUILDING	9	9	9	9	9	9	10	2.13
ALL OTHER	88	89	87	83	84	87	90	0.22

TOTAL INDIRECT	191	190	185	181	184	191	200	1.03
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	32	29	27	25	22	20	18	-9.10
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
284. SPECIAL DIES, TOOLS, ACCESSORIES, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	390	380	355	340	335	333	342	-2.09
INDIRECT	1,188	1,191	1,175	1,167	1,203	1,254	1,316	2.02
TOTAL	1,578	1,571	1,530	1,507	1,538	1,587	1,658	1.08

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	27	27	28	29	32	36	39	7.63
AMMUNITION	44	43	41	40	42	46	49	2.65
TANKS AND TANK COMPONENTS	17	16	14	12	12	11	11	-7.22
OTHER ORDNANCE	21	21	20	20	20	20	21	0.00
COMMUNICATIONS EQUIPMENT	188	194	198	203	214	227	240	4.35
OTHER ELECTRONIC EQUIPMENT	92	99	104	109	116	125	135	6.40
MOTOR VEHICLES	26	24	23	22	23	24	25	0.82
AIRCRAFT AND PARTS	195	194	191	187	190	194	200	0.61
AIRCRAFT ENGINES AND PARTS	115	114	107	105	108	112	116	0.35
SHIPBUILDING	55	55	55	54	56	58	61	2.09
ALL OTHER	408	404	394	386	390	401	419	0.73

TOTAL INDIRECT

	1,188	1,191	1,175	1,167	1,203	1,254	1,316	2.02
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	128	121	114	111	107	104	101	-3.55
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
302. MISC. MACHINERY, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	168	154	122	95	79	72	71	-14.35
INDIRECT	1,917	1,898	1,875	1,871	1,912	1,979	2,065	1.70
TOTAL	2,085	2,052	1,997	1,966	1,991	2,151	2,136	0.81

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	59	59	60	64	70	76	82	6.81
AMMUNITION	77	74	70	69	71	77	83	2.32
TANKS AND TANK COMPONENTS	11	10	9	8	7	7	7	-6.89
OTHER ORDNANCE	27	26	26	25	25	25	25	-0.78
COMMUNICATIONS EQUIPMENT	298	304	309	318	332	348	367	3.84
OTHER ELECTRONIC EQUIPMENT	98	104	110	115	122	130	140	6.13
MOTOR VEHICLES	42	39	36	35	36	37	39	0.00
AIRCRAFT AND PARTS	308	303	298	292	295	298	306	0.20
AIRCRAFT ENGINES AND PARTS	138	135	127	124	127	130	134	-0.15
SHIPBUILDING	142	138	138	138	140	144	150	1.68
ALL OTHER	717	706	692	683	687	707	732	0.73

TOTAL INDIRECT	1,917	1,898	1,875	1,871	1,912	1,979	2,065	1.70
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	139	129	120	116	111	106	102	-4.59
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
303. ELECTRONIC COMPUTING EQUIP, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	3,653	4,014	4,251	4,478	4,736	5,099	5,470	6.39
INDIRECT	1,088	1,141	1,188	1,251	1,332	1,437	1,548	6.29
TOTAL	4,741	5,155	5,439	5,729	6,068	6,536	7,018	6.36

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	5	5	5	5	6	6	7	6.96
AMMUNITION	1	1	1	1	1	1	1	0.00
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	1	1	1	1	1	1	1	0.00
COMMUNICATIONS EQUIPMENT	65	66	66	68	72	77	82	4.44
OTHER ELECTRONIC EQUIPMENT	918	972	1,018	1,076	1,148	1,245	1,345	6.71
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	16	16	15	15	16	16	17	1.22
AIRCRAFT ENGINES AND PARTS	2	2	2	2	2	2	3	8.45
SHIPBUILDING	3	2	3	3	3	3	3	8.45
ALL OTHER	76	75	76	79	82	85	88	3.25
TOTAL INDIRECT	1,088	1,141	1,188	1,251	1,332	1,437	1,548	6.29

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	752	785	804	871	911	916	916	3.13
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

312. ELECTRIC MEASURING INSTR. 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES
DIRECT 5,351 5,396 5,436 5,462 5,367 5,306 5,414 0.07
INDIRECT 1,166 1,221 1,281 1,326 1,375 1,429 1,514 4.40

TOTAL 6,517 6,617 6,717 6,788 6,742 6,735 6,928 0.92

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	25	26	28	31	34	38	42	10.07
AMMUNITION	2	2	2	2	2	2	2	0.00
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	2	2	2	2	2	2	2	0.00
COMMUNICATIONS EQUIPMENT	420	446	468	491	523	558	599	6.08
OTHER ELECTRONIC EQUIPMENT	22	24	26	28	30	33	36	8.45
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	54	56	58	58	60	62	65	3.03
AIRCRAFT ENGINES AND PARTS	3	3	3	3	3	3	3	0.00
SHIPBUILDING	18	18	19	19	20	21	22	4.10
ALL OTHER	619	643	674	691	700	709	742	2.91

TOTAL INDIRECT 1,166 1,221 1,281 1,326 1,375 1,429 1,514 4.40

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT) 81 76 72 69 66 63 60 -4.62

Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

315. MOTORS & GENERATORS, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	656	700	710	709	710	746	781
INDIRECT	653	667	671	679	702	739	780
TOTAL	1,309	1,367	1,381	1,388	1,412	1,485	1,561
							2.69

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	30	30	31	33	36	39	43	7.47
AMMUNITION	9	9	8	8	8	9	10	2.13
TANKS AND TANK COMPONENTS	6	5	5	4	4	4	4	-4.36
OTHER ORDNANCE	3	3	3	3	2	3	3	0.00
COMMUNICATIONS EQUIPMENT	136	140	141	145	151	160	170	3.96
OTHER ELECTRONIC EQUIPMENT	93	101	106	111	117	127	138	6.44
MOTOR VEHICLES	12	12	11	11	11	11	12	0.00
AIRCRAFT AND PARTS	46	45	44	43	44	45	47	0.87
AIRCRAFT ENGINES AND PARTS	11	11	10	9	10	10	11	0.00
SHIPBUILDING	39	39	38	38	39	41	43	1.97
ALL OTHER	268	272	273	274	280	290	299	1.91
TOTAL INDIRECT	653	667	671	679	702	739	780	3.18

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	48	46	43	42	41	40	38	-3.75
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

316. INDUSTRIAL CONTROLS, 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	19	21	22	23	24	25	26
INDIRECT	833	858	870	881	905	945	996
TOTAL	852	879	892	904	929	970	1,022
							3.06

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	7	7	7	8	9	9	10	7.39
AMMUNITION	3	3	3	3	3	3	3	0.00
TANKS AND TANK COMPONENTS	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	2	2	2	1	1	2	2	0.00
COMMUNICATIONS EQUIPMENT	129	133	135	138	145	154	163	4.15
OTHER ELECTRONIC EQUIPMENT	200	217	228	239	254	275	297	6.48
MOTOR VEHICLES	5	5	4	4	4	4	5	0.00
AIRCRAFT AND PARTS	28	28	27	27	27	28	29	0.70
AIRCRAFT ENGINES AND PARTS	4	4	4	4	4	4	4	0.00
SHIPBUILDING	63	63	62	61	62	65	68	1.54
ALL OTHER	391	395	397	395	395	400	414	0.94
TOTAL INDIRECT	833	858	870	881	905	945	996	3.03

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	62	62	60	61	61	61	60	-0.65
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Source: Defense Economic Impact Modeling System (DEIMS). May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
332. TELEPHONE & TELEGRAPH EQUIP., 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	685	745	802	863	886	894	916
INDIRECT	270	286	302	323	339	355	376
TOTAL	955	1,031	1,104	1,186	1,225	1,249	1,292
							4.62

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	4	4	5	5	6	6	7	11.84
AMMUNITION	2	2	2	2	2	3	3	8.45
TANKS AND TANK COMPONENTS	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	1	1	1	1	1	1	1	0.00
COMMUNICATIONS EQUIPMENT	137	149	160	172	180	186	195	5.53
OTHER ELECTRONIC EQUIPMENT	11	12	14	14	16	17	19	9.63
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	12	13	13	13	13	14	15	2.90
AIRCRAFT ENGINES AND PARTS	3	3	3	3	4	4	4	5.92
SHIPBUILDING	9	9	9	9	9	10	10	2.13
ALL OTHER	89	91	93	102	106	112	120	5.69
TOTAL INDIRECT	270	286	302	323	339	355	376	5.62

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	92	87	79	74	69	65	62	-6.55
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
333. RADIO&TV COMMUNICATION EQUIP, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	28,798	29,775	30,109	30,935	32,212	33,758	35,489	3.57
INDIRECT	3,813	3,874	3,903	3,956	4,112	4,281	4,501	3.05
TOTAL	32,611	33,649	34,012	34,891	36,324	38,039	39,990	3.51

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	1,016	1,037	1,070	1,138	1,240	1,349	1,462	7.11
AMMUNITION	11	11	11	11	11	12	13	3.40
TANKS AND TANK COMPONENTS	2	2	2	2	2	2	2	0.00
OTHER ORDNANCE	55	54	53	51	51	51	52	-0.75
COMMUNICATIONS EQUIPMENT	591	617	627	645	672	704	741	3.73
OTHER ELECTRONIC EQUIPMENT	8	8	9	9	9	10	11	6.58
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	1,672	1,690	1,675	1,642	1,660	1,672	1,721	0.36
AIRCRAFT ENGINES AND PARTS	82	80	75	72	73	74	76	-1.02
SHIPBUILDING	283	284	285	283	287	295	309	1.70
ALL OTHER	92	90	95	102	106	111	113	4.66

TOTAL INDIRECT	3,813	3,874	3,903	3,956	4,112	4,281	4,501	3.05
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	3,469	3,213	2,901	2,692	2,497	2,355	2,235	-7.00
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
335 SEMICONDUCTORS, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES						
DIRECT	274	279	292	304	311	317
INDIRECT	3,791	3,882	3,945	4,131	4,391	4,715
						5,074
						3 16
						5 50
TOTAL	4,065	4,161	4,237	4,435	4,702	5,032
						5,400
						5 35

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	172	174	180	198	222	248	276	9 67
AMMUNITION	53	52	50	51	54	60	67	5 20
TANKS AND TANK COMPONENTS	19	17	16	14	14	14	14	-3 81
OTHER ORDNANCE	59	58	57	57	58	60	63	1 67
COMMUNICATIONS EQUIPMENT	1,561	1,614	1,649	1,747	1,873	2,021	2,178	6 18
OTHER ELECTRONIC EQUIPMENT	768	808	819	853	906	984	1,067	5 72
MOTOR VEHICLES	63	59	56	56	59	63	67	2 58
AIRCRAFT AND PARTS	413	414	412	416	433	449	474	2 74
AIRCRAFT ENGINES AND PARTS	21	21	19	19	20	21	22	0 93
SHIPBUILDING	205	203	204	209	218	231	248	4 09
ALL OTHER	457	462	483	511	534	564	598	5 30
TOTAL INDIRECT	3,791	3,882	3,945	4,131	4,391	4,715	5,074	5 50

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	230	218	208	206	199	195	189	-2 81
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Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
339 CONNECTORS, FOR ELEC APP, 1986-1992
(In millions of 1986 dollars)

1986 1987 1988 1989 1990 1991 1992 1992 1992
AVG ANN
%GROWTH
1987-1992

SUMMARY

DEFENSE PURCHASES

DIRECT	0	0	0	0	0	0	0	0	N/A
INDIRECT	901	904	913	927	971	1,029	1,091	1,091	3.83
TOTAL	901	904	913	927	971	1,029	1,091	1,091	3.83

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	35	35	36	38	42	47	51	51	7.82
AMMUNITION	16	15	15	14	15	17	18	18	3.71
TANKS AND TANK COMPONENTS	2	1	1	1	1	1	1	1	0.00
OTHER ORDNANCE	5	4	4	4	4	4	5	5	4.56
COMMUNICATIONS EQUIPMENT	429	433	440	451	476	507	539	539	4.48
OTHER ELECTRONIC EQUIPMENT	148	152	152	153	160	171	183	183	3.78
MOTOR VEHICLES	3	3	3	3	3	3	3	3	0.00
AIRCRAFT AND PARTS	101	99	98	95	98	100	104	104	0.99
AIRCRAFT ENGINES AND PARTS	18	17	16	16	16	17	17	17	0.00
SHIPBUILDING	11	11	11	11	11	12	13	13	3.40
ALL OTHER	133	134	137	141	145	150	157	157	3.22
TOTAL INDIRECT	901	904	913	927	971	1,029	1,091	1,091	3.83

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	88	81	75	73	70	69	67	67	-3.72
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Source Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

340. ELEC COMPONENTS, NEC. 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992 1992 1992

SUMMARY

DEFENSE PURCHASES								
DIRECT	695	718	751	781	807	828	851	3.46
INDIRECT	4,376	4,516	4,557	4,656	4,879	5,172	5,488	3.98
TOTAL	5,071	5,234	5,308	5,437	5,686	6,000	6,339	3.91

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	144	146	149	158	173	191	209	7.44
AMMUNITION	55	54	50	50	52	57	62	2.80
TANKS AND TANK COMPONENTS	5	5	4	4	4	4	4	-4.36
OTHER ORDNANCE	30	29	28	27	27	28	29	0.00
COMMUNICATIONS EQUIPMENT	2,443	2,521	2,536	2,594	2,723	2,886	3,057	3.93
OTHER ELECTRONIC EQUIPMENT	874	931	957	988	1,044	1,124	1,205	5.29
MOTOR VEHICLES	11	11	10	10	10	11	11	0.00
AIRCRAFT AND PARTS	296	296	290	284	290	296	308	0.80
AIRCRAFT ENGINES AND PARTS	54	53	50	48	50	51	54	0.37
SHIPBUILDING	46	46	46	46	47	50	53	2.87
ALL OTHER	418	424	437	447	459	474	496	3.19
TOTAL INDIRECT	4,376	4,516	4,557	4,656	4,879	5,172	5,488	3.98

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	410	391	365	354	345	337	328	-3.45
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Source: Defense Economic Impact Modeling System (DEIMS). May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
349 OTHER MOTOR VEHICLES, 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES								
DIRECT	3,018	2,805	2,623	2,525	2,534	2,643	2,741	-0.46
INDIRECT	12	12	11	12	12	13	13	1.61
TOTAL	3,030	2,817	2,634	2,537	2,546	2,656	2,754	-0.45

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	0	0	0	0	0	0	0	N/A
AMMUNITION	0	0	0	0	0	0	0	N/A
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	1	1	1	1	1	1	1	0.00
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	9	8	8	8	8	9	9	2.38
AIRCRAFT AND PARTS	0	0	0	0	0	0	0	N/A
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	0	0	0	0	0	0	0	N/A
ALL OTHER	2	3	2	3	3	3	3	0.00
TOTAL INDIRECT	12	12	11	12	12	13	13	1.61

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	278	254	238	225	213	202	192	-5.44
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
350 MOTOR VEHICLE PARTS & ACCESS., 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	772	754	758	775	802	825	849
INDIRECT	1,290	1,260	1,195	1,163	1,167	1,200	1,243
							2 40
							-0 27

TOTAL 2,062 2,014 1,953 1,938 1,969 2,025 2,092 0 76

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	22	22	22	24	25	27	29	5 68
AMMUNITION	7	7	6	6	6	7	7	0 00
TANKS AND TANK COMPONENTS	4	4	3	3	3	3	3	-5 59
OTHER ORDNANCE	3	3	3	3	3	3	3	0 00
COMMUNICATIONS EQUIPMENT	87	92	92	93	95	99	104	2 48
OTHER ELECTRONIC EQUIPMENT	18	20	21	21	22	24	26	5 39
MOTOR VEHICLES	894	852	782	745	738	757	779	-1 78
AIRCRAFT AND PARTS	29	30	29	28	29	29	29	-0 68
AIRCRAFT ENGINES AND PARTS	11	12	11	10	10	10	11	-1 73
SHIPBUILDING	17	17	17	16	16	16	17	0 00
ALL OTHER	198	201	209	214	220	225	235	3 17

TOTAL INDIRECT 1,290 1,260 1,195 1,163 1,167 1,200 1,243 -0 27

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT) 169 155 141 132 123 116 110 -6 63

Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF

351 AIRCRAFT 1986-1992

(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

DIRECT
INDIRECT

17,083 16,978 16,003 15,122 14,997 15,083 15,631
21 21 20 19 20 21 22
-1.64
0.93

TOTAL

-1.64

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES 1 1 1 1 1 1 1 0.00
AMMUNITION 0 0 0 0 0 0 0 N/A
TANKS AND TANK COMPONENTS 0 0 0 0 0 0 0 N/A
OTHER ORDNANCE 0 0 0 0 0 0 0 N/A
COMMUNICATIONS EQUIPMENT 1 1 1 1 1 1 1 0.00
OTHER ELECTRONIC EQUIPMENT 0 0 0 0 0 0 0 N/A
MOTOR VEHICLES 0 0 0 0 0 0 0 N/A
AIRCRAFT AND PARTS 17 17 16 15 16 16 17 0.00
AIRCRAFT ENGINES AND PARTS 1 1 1 1 1 1 1 0.00
SHIPBUILDING 0 0 0 0 0 0 0 N/A
ALL OTHER 1 1 1 1 1 2 2 14.87

TOTAL INDIRECT

0.93

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT) 1,053 965 870 812 736 695 657 -7.40

Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
354. SHIPBUILDING & REPAIRING, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES

DIRECT	8,086	8,029	8,020	7,963	8,061	8,311	8,693	1.60
INDIRECT	24	15	16	16	11	8	6	-16.74
TOTAL	8,110	8,044	8,036	7,979	8,072	8,319	8,699	1.58

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	0	0	0	0	0	0	0	N/A
AMMUNITION	0	0	0	0	0	0	0	N/A
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	1	1	1	1	0	0	0	N/A
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	1	0	0	0	0	0	0	N/A
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	8	6	5	5	3	2	2	-19.73
ALL OTHER	14	8	10	10	8	6	4	-12.94
TOTAL INDIRECT	24	15	16	16	11	8	6	-16.74

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	327	315	298	291	279	268	257	-3.99
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
361. ENGINEERING & SCIENTIFIC INST. 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
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SUMMARY

DEFENSE PURCHASES	1,547	1,582	1,622	1,664	1,694	1,721	1,780	2.39
DIRECT	71	70	70	70	72	75	78	2.19
INDIRECT								
TOTAL	1,618	1,652	1,692	1,734	1,766	1,796	1,858	2.38

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	2	2	2	2	2	3	3	8.45
AMMUNITION	0	0	0	0	0	0	0	N/A
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	13	13	13	14	14	15	16	4.24
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	26	26	26	25	26	26	27	0.76
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	12	11	11	11	12	12	13	3.40
ALL OTHER	18	18	18	18	18	19	19	1.09

TOTAL INDIRECT	71	70	70	70	72	75	78	2.19
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	131	124	115	111	104	98	93	-5.59
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Source: Defense Economic Impact Modeling System (DEIMS). May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
353 AIRCRAFT PARTS & EQUIP.NEC. 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES	5,414	5,325	5,151	5,134	5,353	5,692	5,986	2.37
DIRECT	6,127	5,822	5,398	5,073	5,024	5,025	5,116	-2.55
INDIRECT								
TOTAL	11,541	11,147	10,549	10,207	10,377	10,717	11,102	-0.08

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	446	422	417	428	454	479	503	3.57
AMMUNITION	15	14	13	12	12	13	14	0.00
TANKS AND TANK COMPONENTS	5	4	4	3	3	3	3	-5.59
OTHER ORDNANCE	55	49	47	44	42	41	41	-3.50
COMMUNICATIONS EQUIPMENT	103	100	97	96	98	99	101	0.20
OTHER ELECTRONIC EQUIPMENT	9	9	9	9	9	10	10	2.13
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	4,945	4,713	4,343	4,039	3,965	3,942	4,005	-3.20
AIRCRAFT ENGINES AND PARTS	481	446	405	380	379	378	379	-3.20
SHIPBUILDING	10	9	9	8	8	8	8	-2.33
ALL OTHER	57	55	53	53	53	51	51	-1.50
TOTAL INDIRECT	6,127	5,822	5,398	5,073	5,024	5,025	5,116	-2.55

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	550	488	436	403	365	341	318	-8.21
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
352. AIRCRAFT ENGINES&ENGINE PARTS, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	5,741	5,694	5,384	5,258	5,385	5,547	5,748
INDIRECT	1,433	1,430	1,349	1,310	1,314	1,298	1,307
TOTAL	7,174	7,124	6,733	6,568	6,699	6,845	7,055
							-0.19

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	39	38	37	39	41	43	45	3.44
AMMUNITION	4	3	3	3	3	3	3	0.00
TANKS AND TANK COMPONENTS	3	3	2	2	2	2	2	-7.79
OTHER ORDNANCE	7	7	6	6	6	5	5	-6.51
COMMUNICATIONS EQUIPMENT	24	25	24	25	25	26	26	0.79
OTHER ELECTRONIC EQUIPMENT	6	6	6	7	7	7	7	3.13
MOTOR VEHICLES	1	1	1	1	1	1	1	0.00
AIRCRAFT AND PARTS	831	834	797	772	769	751	752	-2.05
AIRCRAFT ENGINES AND PARTS	473	467	426	410	414	414	418	-2.19
SHIPBUILDING	3	3	3	3	3	3	3	0.00
ALL OTHER	42	43	44	42	43	43	45	0.91

TOTAL INDIRECT	1,433	1,430	1,349	1,310	1,314	1,298	1,307	-1.78
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	708	664	605	578	533	509	485	6.09
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
362 MEASURING & CONTROL INSTR. 1986-1992
(In millions of 1986 dollars)

AVG. ANN
%GROWTH
1987 1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES						
DIRECT	2,754	2,822	2,872	2,903	2,872	2,885
INDIRECT	443	441	436	436	449	467
						2,954
						492
						2 21
TOTAL	3,197	3,263	3,308	3,339	3,321	3,352
						3,446
						1 10

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	4	4	5	5	6	6	7	11	14
AMMUNITION	3	2	2	2	3	3	3	8	45
TANKS AND TANK COMPONENTS	1	1	0	0	0	0	0	N/A	
OTHER ORDNANCE	1	1	1	1	1	1	1	0	00
COMMUNICATIONS EQUIPMENT	49	51	53	55	59	63	67	5	61
OTHER ELECTRONIC EQUIPMENT	5	5	5	6	6	7	7	6	96
MOTOR VEHICLES	8	8	8	8	8	8	9	2	38
AIRCRAFT AND PARTS	133	134	137	138	141	144	150	2	28
AIRCRAFT ENGINES AND PARTS	8	8	7	7	7	8	8	0	00
SHIPBUILDING	28	28	28	29	30	31	33	3	34
ALL OTHER	203	199	190	185	188	196	207	0	79
TOTAL INDIRECT	443	441	436	436	449	467	492	2	21

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	443	417	386	367	342	324	306	-6	00
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

PROJECTED DEFENSE PURCHASES OF
363 SURGICAL & MEDICAL INSTRS. 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	813	885	905	898	896	957	999
INDIRECT	11	11	12	12	13	13	14
TOTAL	824	896	917	910	909	970	1,013
							2 45
							4 94
							2 48

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	0	0	0	0	0	0	0	N/A
AMMUNITION	0	0	0	0	0	0	0	N/A
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	0	0	0	0	0	0	0	N/A
COMMUNICATIONS EQUIPMENT	0	0	0	0	0	0	0	N/A
OTHER ELECTRONIC EQUIPMENT	0	0	0	0	0	0	0	N/A
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	0	0	0	0	0	0	0	N/A
AIRCRAFT ENGINES AND PARTS	0	0	0	0	0	0	0	N/A
SHIPBUILDING	0	0	0	0	0	0	0	N/A
ALL OTHER	11	11	12	12	13	13	14	4 94
TOTAL INDIRECT	11	11	12	12	13	13	14	4 94

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	13	13	12	11	11	10	9	7 09
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF
364 SURGICAL APPLIANCES & SUPPLIES, 1986-1992
(In millions of 1986 dollars)

AVG ANN
%GROWTH
1987-1992

1986 1987 1988 1989 1990 1991 1992

SUMMARY

DEFENSE PURCHASES							
DIRECT	650	711	757	783	828	901	966
INDIRECT	73	75	77	79	82	86	90
TOTAL	723	786	834	862	910	987	1,056
							6 08

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	2	2	2	2	3	3	3	8 45
AMMUNITION	3	3	3	3	3	3	3	0 00
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	1	1	1	1	1	1	1	0 00
COMMUNICATIONS EQUIPMENT	13	13	13	14	14	15	16	4 24
OTHER ELECTRONIC EQUIPMENT	4	4	4	5	5	5	6	8 45
MOTOR VEHICLES	1	1	1	1	1	1	1	0 00
AIRCRAFT AND PARTS	7	7	7	7	7	7	7	0 00
AIRCRAFT ENGINES AND PARTS	2	2	2	2	2	2	2	0 00
SHIPBUILDING	4	4	4	4	4	4	4	0 00
ALL OTHER	36	38	40	40	42	45	47	4 34

TOTAL INDIRECT	73	75	77	79	82	86	90	3 71
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FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	10	10	9	9	8	8	8	-4 36
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987

PROJECTED DEFENSE PURCHASES OF
367 OPTICAL INSTRUMENTS & LENSES 1986-1992
(In millions of 1986 dollars)

	1986	1987	1988	1989	1990	1991	1992	AVG ANN %GROWTH 1987-1992
DEFENSE PURCHASES								
DIRECT	996	1,091	1,243	1,392	1,510	1,636	1,789	10.40
INDIRECT	305	305	297	296	308	324	342	2.32
TOTAL	1,301	1,396	1,540	1,688	1,818	1,960	2,131	8.83

SUMMARY

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

MISSILES	10	10	10	10	11	12	12	3.71
AMMUNITION	2	1	1	1	1	2	2	14.87
TANKS AND TANK COMPONENTS	0	0	0	0	0	0	0	N/A
OTHER ORDNANCE	1	1	1	1	1	1	1	0.00
COMMUNICATIONS EQUIPMENT	112	114	111	113	118	124	131	2.82
OTHER ELECTRONIC EQUIPMENT	2	2	2	2	2	2	2	0.00
MOTOR VEHICLES	0	0	0	0	0	0	0	N/A
AIRCRAFT AND PARTS	117	114	107	103	105	107	110	-0.71
AIRCRAFT ENGINES AND PARTS	14	13	12	11	11	12	12	-1.59
SHIPBUILDING	1	1	1	1	1	1	1	0.00
ALL OTHER	46	49	52	54	58	63	71	7.70
TOTAL INDIRECT	305	305	297	296	308	324	342	2.32

FOREIGN MILITARY SALES (FMS)

FMS (DIRECT PLUS INDIRECT)	97	95	93	96	97	95	92	-0.64
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Source: Defense Economic Impact Modeling System (DEIMS), May 21, 1987.

SECTION III: INDIVIDUAL STATE PROJECTIONS

These tables present state level estimates of defense and defense related expenditures in calendar years 1987 through 1992. A separate table is provided for each of the 50 states and the District of Columbia. Each table is divided into two parts, the first providing a general overview of projected spending trends over the forecast period and the second presenting estimates for the industrial sectors projected to lead in defense or defense related sales statewide.

The first section of each table presents estimates of direct defense purchases and pay and of indirect defense purchases for each year of the projection period. (For purposes of comparison, projections of nondefense expenditures and of total economic activity are also provided.) The second section records estimates of the dollar value of direct and indirect purchases from the eight industrial sectors projected to lead in defense sales, and the eight projected to lead in indirect sales stemming from DoD purchases, statewide over the forecast period.

The industrial sectors reported in Section II are at the 4 digit SIC level, the industrial sectors shown in the state tables of Section II, however, are aggregates (at the 3 digit level) of the 4 digit SIC industries. Industrial projections are made for 429 separate industries. For the purposes of the state level reports, these are grouped into 79 industrial sectors. Thus, industrial sector 60, "Aircraft and Parts", used in the state tables, includes three industries: industry 351, "Aircraft", industry 352, "Aircraft Engines and Engine Parts", and industry 353, "Aircraft Parts and Equipment, NEC."

ALABAMA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	3,593	3,606	3,646	3,696	3,769	3,856
INDIRECT FROM PAY	1,997	2,034	2,072	2,163	2,258	2,362
	1,544	1,514	1,505	1,499	1,500	1,509
NONDEFENSE						
	98,014	101,182	103,218	106,191	109,798	112,905
TOTAL	105,148	108,336	110,441	113,549	117,325	120,632

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	2,090	2,067	2,065	2,057	2,069	2,090
33 BUSINESS SERVICES	283	296	313	326	338	351
37 ORDNANCE & ACCESSORIES	205	200	199	202	207	213
56 RADIO TV, & COMMUNICATION EQ	198	197	202	214	227	239
60 AIRCRAFT & PARTS	176	160	151	152	155	161
37 MISC SERVICES	122	131	140	143	146	152
33 NEW CONSTRUCTION	107	113	123	132	140	145
68 UTILITIES	50	51	54	57	60	62

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73 BUSINESS SERVICES	195	205	211	221	232	244
38 NONFERROUS METALS	158	157	157	160	165	173
37 PRIMARY FERROUS METALS	156	156	155	158	162	163
60 AIRCRAFT & PARTS	93	84	76	75	73	74
59 WHOLESALE & RETAIL TRADE	84	87	90	95	100	104
68 UTILITIES	79	81	84	87	91	95
57 ELECTRONIC COMPONENTS & ACCESS	76	77	78	83	88	93
24 PAPER & ALLIED PRODUCTS	69	73	76	79	83	87

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987

ALASKA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	985	996	1,019	1,043	1,066	1,089
INDIRECT FROM PURCHASES	295	301	313	329	342	358
INDIRECT FROM PAY	205	197	196	194	192	193
NONDEFENSE	13,715	13,790	14,022	14,250	14,488	14,850
TOTAL	15,199	15,284	15,551	15,816	16,088	16,490

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	653	646	648	651	657	665
11 NEW CONSTRUCTION	132	138	149	159	166	172
73 BUSINESS SERVICES	67	68	72	76	80	83
27 CHEMICALS & PRODUCTS	37	38	40	41	42	43
31 PET REFINING & REL PROD	31	32	33	34	35	36
68 UTILITIES	19	20	21	22	23	23
65 TRANSPORTATION & WAREHOUSING	12	18	18	19	19	20
71 REAL ESTATE & RENTAL	9	9	10	11	11	12

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

8 CRUDE PETROLEUM & N GAS	52	48	49	50	50	52
73 BUSINESS SERVICES	46	46	47	48	50	52
69 WHOLESALE & RETAIL TRADE	37	39	42	45	47	50
68 UTILITIES	32	34	35	37	38	39
65 TRANSPORTATION & WAREHOUSING	29	32	34	37	38	40
71 REAL ESTATE & RENTAL	23	24	25	27	28	29
66 COMMUNICATION EXC RADIO & TV	9	9	10	11	12	13
70 FINANCE & INSURANCE	8	8	9	9	9	9

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987

ARIZONA
SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	3,449	3,443	3,474	3,538	3,617	3,718
INDIRECT FROM PAY	2,154	2,188	2,232	2,321	2,418	2,540
	1,299	1,289	1,302	1,315	1,335	1,362
NONDEFENSE	88,263	92,103	95,412	99,558	104,349	108,927
TOTAL	95,166	99,022	102,420	106,730	111,720	116,547

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	1,310	1,292	1,291	1,294	1,299	1,308
13 ORDNANCE & ACCESSORIES	592	584	595	621	652	681
56 RADIO, TV, & COMMUNICATION EQ	448	454	467	483	501	524
60 AIRCRAFT & PARTS	367	334	310	300	297	304
73 BUSINESS SERVICES	164	173	183	189	195	202
11 NEW CONSTRUCTION	112	119	128	134	139	144
53 ELECTRICAL MACHINERY	55	55	56	55	55	56
62 INSTRUMENTS & SUPPLIES	45	47	47	47	47	48

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

57 ELECTRONIC COMPONENTS & ACCESS	358	369	390	417	444	474
73 BUSINESS SERVICES	283	302	318	338	360	385
60 AIRCRAFT & PARTS	241	218	201	195	192	193
69 WHOLESALE & RETAIL TRADE	124	126	128	133	138	144
38 NONFERROUS METALS	113	116	118	120	123	129
6 NONFERROUS METAL MINING	105	97	93	92	89	89
68 UTILITIES	100	101	102	105	109	114
65 TRANSPORTATION & WAREHOUSING	85	90	92	95	95	102

Source Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

ARKANSAS

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	1,334	1,346	1,376	1,422	1,463	1,510
INDIRECT FROM PAY	1,079	1,103	1,133	1,192	1,251	1,315
TOTAL	1,030	1,004	1,001	999	1,003	1,012
NONDEFENSE	62,966	64,759	66,113	68,190	70,556	72,731
TOTAL	66,409	68,212	69,623	71,803	74,273	76,568

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	675	666	665	665	668	673
13 ORDNANCE & ACCESSORIES	220	214	225	241	254	275
11 NEW CONSTRUCTION	98	104	113	122	129	134
27 CHEMICALS & PRODUCTS	70	73	77	80	84	86
73 BUSINESS SERVICES	38	39	41	44	46	48
68 UTILITIES	28	29	30	32	34	35
61 OTHER TRANSPORTATION EQ	27	27	25	25	26	28
65 TRANSPORTATION & WAREHOUSING	24	34	34	36	37	38

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

38 NONFERROUS METALS	94	95	94	96	100	103
73 BUSINESS SERVICES	84	87	90	95	101	107
53 ELECTRICAL MACHINERY	71	71	72	72	75	78
68 UTILITIES	55	56	58	61	64	67
69 WHOLESALE & RETAIL TRADE	54	56	58	62	66	70
65 TRANSPORTATION & WAREHOUSING	41	44	46	50	53	55
32 RUBBER & MISC PLASTICS PROD	40	41	43	45	47	50
42 OTHER FAB METAL PRODUCTS	40	40	41	44	47	51

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987

CALIFORNIA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	48,067	48,258	48,818	49,731	50,989	52,611
INDIRECT FROM PAY	22,220	22,771	23,229	24,114	25,158	26,403
	11,677	11,591	11,638	11,667	11,764	11,927
NONDEFENSE						
	755,735	790,573	814,973	844,906	881,223	915,207
TOTAL	837,699	873,194	898,658	930,418	969,133	1,006,148

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	13,234	13,080	13,088	13,096	13,179	13,317
56 RADIO, TV, & COMMUNICATION EQ	7,126	7,181	7,365	7,707	8,094	8,498
13 ORDNANCE & ACCESSORIES	6,997	6,906	6,965	7,143	7,400	7,702
60 AIRCRAFT & PARTS	6,350	5,968	5,674	5,655	5,718	5,900
73 BUSINESS SERVICES	3,869	4,075	4,303	4,457	4,598	4,772
62 INSTRUMENTS & SUPPLIES	1,545	1,597	1,626	1,623	1,651	1,700
53 ELECTRICAL MACHINERY	1,382	1,421	1,438	1,396	1,364	1,371
11 NEW CONSTRUCTION	965	1,016	1,104	1,180	1,239	1,290

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73 BUSINESS SERVICES	2,809	2,965	3,091	3,280	3,492	3,734
57 ELECTRONIC COMPONENTS & ACCESS.	2,219	2,268	2,344	2,470	2,627	2,782
69 WHOLESALE & RETAIL TRADE	2,025	2,054	2,085	2,151	2,233	2,336
55 TRANSPORTATION & WAREHOUSING	1,427	1,507	1,539	1,584	1,635	1,695
65 UTILITIES	1,406	1,422	1,438	1,470	1,516	1,575
71 REAL ESTATE & RENTAL	1,372	1,396	1,432	1,472	1,518	1,580
60 AIRCRAFT & PARTS	1,254	1,189	1,126	1,110	1,097	1,097
56 RADIO, TV, & COMMUNICATION EQ	944	961	980	1,025	1,069	1,120

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

COLORADO

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	3,557	3,617	3,685	3,737	3,801	3,894
INDIRECT FROM PAY	2,075	2,134	2,180	2,254	2,338	2,447
	1,623	1,616	1,632	1,633	1,647	1,676
NONDEFENSE						
	105,545	110,522	114,388	118,172	123,036	127,830
TOTAL	112,800	117,889	121,884	125,795	130,823	135,847

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	1,701	1,679	1,679	1,686	1,694	1,710
73. BUSINESS SERVICES	365	380	401	420	437	454
56. RADIO, TV, & COMMUNICATION EQ.	339	347	354	357	368	382
13. ORDNANCE & ACCESSORIES	209	213	221	224	230	240
11. NEW CONSTRUCTION	161	169	183	195	205	213
53. ELECTRICAL MACHINERY	130	134	135	128	122	121
51. OFFICE, COMPUTING & ACCT. MACH.	123	133	142	148	157	168
60. AIRCRAFT & PARTS	113	98	89	88	90	93

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	346	362	377	399	422	449
60. AIRCRAFT & PARTS	210	186	167	161	157	158
69. WHOLESALE & RETAIL TRADE	126	132	137	141	145	152
8. CRUDE PETROLEUM & N. GAS	121	114	116	122	117	117
68. UTILITIES	107	111	114	116	119	124
71. REAL ESTATE & RENTAL	89	94	98	100	103	107
57. ELECTRONIC COMPONENTS & ACCESS.	87	90	91	93	100	107
65. TRANSPORTATION & WAREHOUSING	87	97	101	103	106	109

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

CONNECTICUT

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	6,091	5,946	5,862	5,932	6,078	6,289
INDIRECT FROM PURCHASES	4,090	4,096	4,093	4,204	4,355	4,556
INDIRECT FROM PAY	1,584	1,578	1,592	1,601	1,619	1,647
NONDEFENSE	105,624	111,668	116,061	120,805	126,241	131,404
TOTAL	117,389	123,289	127,607	132,542	138,293	143,896

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE	2,509	2,319	2,175	2,176	2,213	2,292
60. AIRCRAFT & PARTS	963	968	973	970	990	1,024
61. OTHER TRANSPORTATION EQ.	597	590	591	592	596	603
82. FEDERAL GOVERNMENT WAGES & SALARIES	406	420	443	469	491	511
73. BUSINESS SERVICES	335	337	345	358	373	391
56. RADIO, TV, & COMMUNICATION EQ.	204	206	207	211	220	229
62. INSTRUMENTS & SUPPLIES	193	199	203	204	207	212
43. ENGINES & TURBINES	155	147	148	155	164	173
13. ORDNANCE & ACCESSORIES						
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES	617	582	538	526	518	518
60. AIRCRAFT & PARTS	421	415	409	416	430	450
69. WHOLESALE & RETAIL TRADE	334	357	378	405	434	465
73. BUSINESS SERVICES	273	279	277	283	291	302
65. TRANSPORTATION & WAREHOUSING	242	238	233	236	243	252
68. UTILITIES	233	236	243	254	269	286
57. ELECTRONIC COMPONENTS & ACCESS.	206	204	203	208	214	223
71. REAL ESTATE & RENTAL	164	165	168	175	184	195
38. NONFERROUS METALS						

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

DELAWARE
SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	405	415	423	431	439	448
INDIRECT FROM PAY	516	537	560	586	612	643
NONDEFENSE	436	431	434	433	434	439
TOTAL	26,059	27,168	27,971	28,848	29,902	30,939
	27,416	28,552	29,387	30,298	31,388	32,470

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	211	208	208	209	210	212
31. PET REFINING & REL. PROD.	50	52	53	55	56	57
73. BUSINESS SERVICES	31	32	34	36	37	39
77. MISC. SERVICES	24	26	26	28	29	30
27. CHEMICALS & PRODUCTS	17	17	18	19	20	21
11. NEW CONSTRUCTION	12	13	14	15	16	17
68. UTILITIES	9	9	10	11	11	11
37. PRIMARY FERROUS METALS	9	9	8	7	6	6
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
28. PLASTICS & SYNTHETIC MATLS.	174	179	189	198	207	220
27. CHEMICALS & PRODUCTS	88	92	97	101	105	109
73. BUSINESS SERVICES	55	58	60	64	67	72
68. UTILITIES	17	18	18	19	19	20
71. REAL ESTATE & RENTAL	15	16	17	17	18	18
70. FINANCE & INSURANCE	15	16	17	18	19	20
65. TRANSPORTATION & WAREHOUSING	14	16	16	17	17	17
69. WHOLESALE & RETAIL TRADE	12	13	13	13	14	14

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

DIST. OF COLUM.

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	2,031	2,074	2,134	2,169	2,218	2,278
INDIRECT FROM PAY	585	615	647	681	716	758
	491	480	483	483	483	487
NONDEFENSE						
	41,222	41,930	42,915	44,160	45,548	46,944
TOTAL	44,329	45,099	46,178	47,493	48,966	50,467

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,135	1,124	1,126	1,119	1,129	1,144
73. BUSINESS SERVICES	479	494	521	553	579	603
77. MISC. SERVICES	253	280	300	299	301	312
11. NEW CONSTRUCTION	42	44	48	52	55	57
51. OFFICE, COMPUTING & ACCT. MACH.	38	41	44	48	52	56
68. UTILITIES	15	15	16	17	18	19
65. TRANSPORTATION & WAREHOUSING	15	17	18	18	18	19
69. WHOLESALE & RETAIL TRADE	10	11	11	12	12	13

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	233	245	259	273	288	307
71. REAL ESTATE & RENTAL	75	78	82	85	89	93
69. WHOLESALE & RETAIL TRADE	58	61	63	66	70	74
68. UTILITIES	49	51	53	55	57	60
65. TRANSPORTATION & WAREHOUSING	42	45	48	50	52	55
66. COMMUNICATION EXC. RADIO & TV	27	29	31	33	35	37
74. EATING & DRINKING PLACE	21	23	24	26	27	29
70. FINANCE & INSURANCE	17	18	18	19	20	21

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

FLORIDA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	11,363	11,420	11,538	11,780	12,056	12,378
INDIRECT FROM PURCHASES	4,940	5,109	5,242	5,474	5,734	6,033
INDIRECT FROM PAY	4,816	4,778	4,788	4,799	4,842	4,915
NONDEFENSE	305,185	317,353	325,805	337,324	352,032	365,784
TOTAL	326,304	338,660	347,372	359,377	374,665	389,110

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	4,938	4,871	4,865	4,881	4,898	4,933
56. RADIO, TV, & COMMUNICATION EQ.	1,689	1,704	1,751	1,837	1,937	2,039
60. AIRCRAFT & PARTS	1,006	959	916	918	928	955
13. ORDNANCE & ACCESSORIES	966	945	952	996	1,046	1,091
73. BUSINESS SERVICES	670	703	742	772	799	829
27. CHEMICALS & PRODUCTS	266	283	292	288	284	285
11. NEW CONSTRUCTION	264	278	302	325	342	356
62. INSTRUMENTS & SUPPLIES	236	244	248	248	254	262

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	1,010	1,063	1,106	1,171	1,245	1,329
69. WHOLESALE & RETAIL TRADE	389	397	404	418	434	454
68. UTILITIES	335	341	346	353	364	377
65. TRANSPORTATION & WAREHOUSING	281	302	308	317	327	338
57. ELECTRONIC COMPONENTS & ACCESS.	279	287	299	318	343	367
71. REAL ESTATE & RENTAL	255	261	268	275	284	295
56. RADIO, TV, & COMMUNICATION EQ.	228	234	241	254	269	286
70. FINANCE & INSURANCE	193	205	213	225	238	254

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

GEORGIA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	6,091	6,106	6,169	6,288	6,426	6,588
INDIRECT FROM PAY	3,115	3,208	3,288	3,441	3,597	3,766
	2,948	2,924	2,930	2,928	2,939	2,968
NONDEFENSE						
	181,231	189,613	194,830	201,025	208,607	215,411
TOTAL	193,384	201,851	207,217	213,683	221,570	228,733

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	3,206	3,170	3,171	3,168	3,188	3,222
60. AIRCRAFT & PARTS	1,478	1,427	1,408	1,436	1,474	1,533
73. BUSINESS SERVICES	381	393	413	439	460	478
11. NEW CONSTRUCTION	325	342	373	401	423	441
68. UTILITIES	114	118	124	132	138	143
65. TRANSPORTATION & WAREHOUSING	79	119	122	128	133	136
56. RADIO, TV, & COMMUNICATION EQ.	53	54	55	55	55	56
77. MISC. SERVICES	48	53	57	57	58	60

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	473	501	522	551	584	622
69. WHOLESALE & RETAIL TRADE	221	221	222	234	245	256
68. UTILITIES	194	194	194	202	211	220
38. NONFERROUS METALS	192	196	198	202	209	217
65. TRANSPORTATION & WAREHOUSING	162	170	172	180	188	195
60. AIRCRAFT & PARTS	157	156	160	161	160	162
71. REAL ESTATE & RENTAL	128	128	130	135	141	146
74. EATING & DRINKING PLACE	102	99	98	101	105	110

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

HAWAII

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	2,595	2,603	2,640	2,676	2,724	2,776
INDIRECT FROM PURCHASES	323	341	356	378	399	419
INDIRECT FROM PAY	472	465	462	458	462	469
NONDEFENSE	29,015	29,846	30,316	31,132	32,408	33,605
TOTAL	32,406	33,254	33,774	34,645	35,993	37,269

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,102	2,080	2,086	2,089	2,108	2,136
11. NEW CONSTRUCTION	151	157	170	182	193	201
73. BUSINESS SERVICES	141	145	153	162	170	177
68. UTILITIES	48	49	52	55	57	59
31. PET REFINING & REL. PROD.	40	41	42	43	45	45
65. TRANSPORTATION & WAREHOUSING	20	30	30	32	33	34
61. OTHER TRANSPORTATION EQ.	18	18	19	19	20	21
77. MISC. SERVICES	13	15	16	16	16	17
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	72	75	77	81	86	91
68. UTILITIES	48	49	51	54	56	58
69. WHOLESALE & RETAIL TRADE	46	48	51	55	58	61
65. TRANSPORTATION & WAREHOUSING	34	37	40	42	45	46
71. REAL ESTATE & RENTAL	32	33	35	37	38	40
70. FINANCE & INSURANCE	17	18	18	19	20	21
66. COMMUNICATION EXC. RADIO & TV	12	13	14	15	16	17
14. FOOD & KINDRED PRODUCTS	10	10	11	11	12	13

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

IOAHO

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	336	342	347	356	362	369
INDIRECT FROM PURCHASES	314	330	341	353	368	385
INDIRECT FROM PAY	412	404	403	395	392	394
NONDEFENSE	25,325	26,184	26,872	27,270	28,031	28,838
TOTAL	26,386	27,260	27,962	28,373	29,153	29,986

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	254	251	251	252	253	255
11. NEW CONSTRUCTION	24	25	27	29	31	32
73. BUSINESS SERVICES	13	13	14	15	16	16
14. FOOD & KINDRED PRODUCTS	8	10	11	12	13	14
65. TRANSPORTATION & WAREHOUSING	7	12	12	12	13	13
68. UTILITIES	5	6	6	6	6	7
62. INSTRUMENTS & SUPPLIES	5	5	5	5	5	5
72. PERSONAL SERVICES EXC. AUTO.	2	2	3	3	3	3

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	52	54	55	57	60	63
27. CHEMICALS & PRODUCTS	28	30	31	32	33	35
57. ELECTRONIC COMPONENTS & ACCESS.	27	28	29	30	32	34
6. NONFERROUS METAL MINING	24	23	23	22	22	23
20. LUMBER & WOOD PRODUCTS	18	19	20	21	22	23
1. AGRICULTURAL PRODUCTS	18	21	24	24	25	26
70. FINANCE & INSURANCE	16	17	17	18	18	19
14. FOOD & KINDRED PRODUCTS	15	16	17	18	19	20

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

ILLINOIS

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	5,024	5,097	5,159	5,263	5,403	5,552
INDIRECT FROM PURCHASES	6,068	6,174	6,272	6,484	6,707	6,961
INDIRECT FROM PAY	5,272	5,168	5,131	5,089	5,062	5,064
NONDEFENSE	336,666	347,855	354,742	363,314	372,863	381,192
TOTAL	353,030	364,294	371,304	380,151	390,035	398,768

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	2,193	2,170	2,172	2,167	2,183	2,209
56. RADIO, TV, & COMMUNICATION EQ	579	574	586	615	647	680
73. BUSINESS SERVICES	272	285	301	314	325	337
11. NEW CONSTRUCTION	207	217	236	254	268	279
47. METALWORKING MACH. & EQ.	189	177	170	164	163	167
60. AIRCRAFT & PARTS	173	154	143	142	145	151
65. TRANSPORTATION & WAREHOUSING	170	241	246	253	260	264
13. ORDNANCE & ACCESSORIES	143	138	139	145	153	160

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	1,001	1,050	1,091	1,148	1,205	1,272
38. NONFERROUS METALS	372	370	368	376	385	400
37. PRIMARY FERROUS METALS	362	358	353	361	368	370
57. ELECTRONIC COMPONENTS & ACCESS.	263	262	261	266	276	287
56. RADIO, TV, & COMMUNICATION EQ.	255	250	249	251	255	263
70. FINANCE & INSURANCE	251	264	273	285	298	313
42. OTHER FAB. METAL PRODUCTS	238	242	243	252	262	272
41. SCREW MACHINE PROD. & STAMPINGS	220	219	218	222	229	237

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

INDIANA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	4,101	4,007	3,969	4,060	4,206	4,352
INDIRECT FROM PURCHASES	3,944	3,949	3,967	4,080	4,226	4,396
INDIRECT FROM PAY	2,443	2,384	2,356	2,341	2,338	2,347
NONDEFENSE	158,601	163,726	166,403	170,713	175,895	180,338
TOTAL	169,090	174,065	176,695	181,192	186,665	191,433

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82	FEDERAL GOVERNMENT WAGES & SALARIES	918	908	907	902	908	917
56	RADIO, TV, & COMMUNICATION EQ	834	829	848	892	941	989
59	MOTOR VEHICLES & EQUIPMENT	804	753	718	736	783	816
60	AIRCRAFT & PARTS	570	511	475	474	482	500
13	ORDNANCE & ACCESSORIES	126	119	121	126	133	139
73	BUSINESS SERVICES	107	111	116	123	129	134
43	ENGINES & TURBINES	100	97	93	89	85	84
65	TRANSPORTATION & WAREHOUSING	67	90	90	94	97	100

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

37	PRIMARY FERROUS METALS	473	470	464	469	478	482
38	NONFERROUS METALS	322	323	322	325	333	348
73	BUSINESS SERVICES	265	276	285	300	315	333
60	AIRCRAFT & PARTS	241	216	203	200	196	196
69	WHOLESALE & RETAIL TRADE	236	230	226	236	250	263
32	RUBBER & MISC PLASTICS PROD	158	164	169	177	187	197
65	TRANSPORTATION & WAREHOUSING	144	149	148	154	162	169
56	RADIO, TV, & COMMUNICATION EQ	144	142	144	146	148	153

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

IOWA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	914	933	951	983	1,019	1,056
INDIRECT FROM PURCHASES	1,090	1,119	1,144	1,203	1,255	1,306
INDIRECT FROM PAY	1,303	1,253	1,237	1,243	1,239	1,234
NONDEFENSE	78,900	80,680	82,091	85,255	87,914	89,726
TOTAL	82,206	83,985	85,424	88,684	91,427	93,323

LARGEST SECTORS
(MILLIONS OF 1985 DOLLARS)

DIRECT DEFENSE						
56 RADIO, TV, & COMMUNICATION EQ.	286	285	293	307	322	340
82 FEDERAL GOVERNMENT WAGES & SALARIES	192	189	189	189	189	190
13 ORDNANCE & ACCESSORIES	72	69	70	74	78	82
62 INSTRUMENTS & SUPPLIES	51	52	52	54	56	58
73 BUSINESS SERVICES	46	49	51	53	54	56
60 AIRCRAFT & PARTS	27	24	22	22	23	24
11 NEW CONSTRUCTION	25	26	29	31	33	34
65 TRANSPORTATION & WAREHOUSING	23	34	35	36	37	38
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73 BUSINESS SERVICES	149	155	159	167	176	187
1 AGRICULTURAL PRODUCTS	83	85	88	105	110	107
38 NONFERROUS METALS	80	80	79	80	82	85
56 RADIO, TV, & COMMUNICATION EQ.	52	52	54	54	55	58
70 FINANCE & INSURANCE	49	50	51	53	56	59
69 WHOLESALE & RETAIL TRADE	47	49	50	53	56	58
32 RUBBER & MISC. PLASTICS PROD.	41	43	45	48	51	55
14 FOOD & KINDRED PRODUCTS	36	39	40	43	45	46

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

KANSAS

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	2,909	2,862	2,849	2,882	2,934	3,014
INDIRECT FROM PAY	1,731	1,726	1,724	1,759	1,804	1,874
NONDEFENSE						
TOTAL	67,701	70,647	72,516	74,283	76,522	78,834
TOTAL	73,362	76,244	78,096	79,922	82,259	84,729

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
60 AIRCRAFT & PARTS	967	880	822	806	808	834
82 FEDERAL GOVERNMENT WAGES & SALARIES	944	932	935	940	947	958
73 BUSINESS SERVICES	191	197	207	220	231	241
56 RADIO, TV, & COMMUNICATION EQ.	176	183	189	195	203	212
11 NEW CONSTRUCTION	87	92	99	106	111	116
13 ORDNANCE & ACCESSORIES	79	78	79	80	82	85
77 MISC SERVICES	58	61	65	68	70	73
65 TRANSPORTATION & WAREHOUSING	39	55	56	58	61	62
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
60 AIRCRAFT & PARTS	432	387	355	336	325	328
69 WHOLESALE & RETAIL TRADE	138	139	141	146	152	159
73 BUSINESS SERVICES	128	134	139	146	154	163
68 UTILITIES	105	105	106	110	114	118
65 TRANSPORTATION & WAREHOUSING	95	101	103	106	110	114
71 REAL ESTATE & RENTAL	87	88	90	93	96	100
8 CRUDE PETROLEUM & N. GAS	83	82	86	89	89	92
74 EATING & DRINKING PLACE	56	57	57	59	61	64

Source Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

KENTUCKY

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	2,052	2,072	2,105	2,146	2,192	2,236
INDIRECT FROM PURCHASES	1,641	1,655	1,675	1,722	1,775	1,852
INDIRECT FROM PAY	1,363	1,328	1,314	1,298	1,291	1,298
NONDEFENSE	90,844	92,964	93,996	95,532	97,831	100,450
TOTAL	95,899	98,020	99,090	100,698	103,090	105,836

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,394	1,379	1,382	1,384	1,395	1,411
68. UTILITIES	154	157	165	175	183	190
11. NEW CONSTRUCTION	87	92	100	108	114	119
27. CHEMICALS & PRODUCTS	81	84	89	93	97	100
73. BUSINESS SERVICES	72	75	78	83	88	91
31. PET REFINING & REL. PROD.	62	64	66	68	69	70
65. TRANSPORTATION & WAREHOUSING	30	45	45	46	48	48
77. MISC. SERVICES	18	19	21	21	22	23
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
7. COAL MINING	240	218	202	195	191	200
73. BUSINESS SERVICES	159	164	169	176	183	193
38. NONFERROUS METALS	151	152	153	156	160	167
68. UTILITIES	119	121	124	130	136	142
31. PET REFINING & REL. PROD.	71	74	75	76	78	80
37. PRIMARY FERROUS METALS	71	72	71	73	75	76
53. ELECTRICAL MACHINERY	59	59	59	59	60	61
27. CHEMICALS & PRODUCTS	57	60	63	65	68	71

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

LOUISIANA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	3,027	3,084	3,145	3,228	3,323	3,427
INDIRECT FROM PURCHASES	2,351	2,418	2,503	2,597	2,681	2,807
INDIRECT FROM PAY	1,561	1,544	1,554	1,548	1,546	1,566
NONDEFENSE	104,785	109,013	113,149	115,785	118,584	122,374
TOTAL	111,724	116,060	120,351	123,158	126,133	130,173

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82 FEDERAL GOVERNMENT WAGES & SALARIES	1,190	1,176	1,176	1,178	1,185	1,196
61 OTHER TRANSPORTATION EQ.	910	918	921	937	973	1,023
11 NEW CONSTRUCTION	254	269	295	317	333	348
77 BUSINESS SERVICES	184	188	198	211	222	231
31 PET REFINING & REL. PROD.	122	127	131	135	138	140
27 CHEMICALS & PRODUCTS	63	66	70	73	76	78
65 TRANSPORTATION & WAREHOUSING	61	89	91	96	100	102
58 UTILITIES	57	59	63	66	69	72

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

8 CRUDE PETROLEUM & N. GAS	444	447	470	480	476	490
73 BUSINESS SERVICES	330	347	359	377	397	422
51 PET REFINING & REL. PROD.	214	224	236	249	261	274
69 WHOLESALE & RETAIL TRADE	195	199	202	210	219	231
27 CHEMICALS & PRODUCTS	167	173	179	186	192	201
65 TRANSPORTATION & WAREHOUSING	131	141	144	150	157	163
68 UTILITIES	129	132	134	139	144	150
58 REAL ESTATE & RENTAL	89	92	94	98	101	105

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

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PROJECTED DEFENSE PURCHASES DETAIL BY INDUSTRY AND
STATE CALENDAR YEARS 1987 THROUGH 1992(U) WASHINGTON
HEADQUARTERS SERVICES (DOD) DC DIRECTORATE FOR INF
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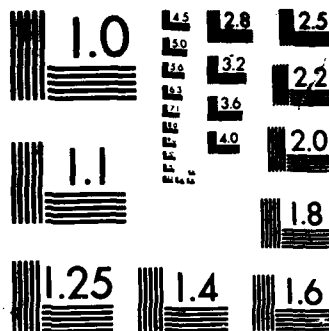
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MAINE

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	1,295	1,319	1,343	1,371	1,410	1,454
INDIRECT FROM PURCHASES	665	678	684	713	745	778
INDIRECT FROM PAY	495	488	489	487	489	493
NONDEFENSE	29,001	30,142	30,961	31,944	33,092	34,113
TOTAL	31,456	32,627	33,477	34,515	35,736	36,838

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	607	601	600	597	601	607
61. OTHER TRANSPORTATION EQ.	455	475	487	501	523	548
73. BUSINESS SERVICES	76	78	82	88	92	96
11. NEW CONSTRUCTION	45	47	52	56	59	61
13. ORDNANCE & ACCESSORIES	38	37	38	40	42	45
65. TRANSPORTATION & WAREHOUSING	11	14	15	15	16	16
68. UTILITIES	8	8	9	9	10	10
14. FOOD & KINDRED PRODUCTS	4	5	6	6	7	7

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

69. WHOLESALE & RETAIL TRADE	81	81	81	84	87	92
57. ELECTRONIC COMPONENTS & ACCESS.	80	79	77	83	88	90
24. PAPER & ALLIED PRODUCTS	60	62	63	66	69	72
73. BUSINESS SERVICES	48	51	53	57	60	64
65. TRANSPORTATION & WAREHOUSING	47	50	50	52	54	56
60. AIRCRAFT & PARTS	43	40	36	36	36	37
68. UTILITIES	41	42	42	43	44	46
71. REAL ESTATE & RENTAL	29	30	30	31	32	34

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MARYLAND

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	7,686	7,847	8,054	8,253	8,494	8,774
INDIRECT FROM PURCHASES	3,807	4,002	4,174	4,352	4,557	4,803
INDIRECT FROM PAY	1,858	1,828	1,824	1,817	1,816	1,827
NONDEFENSE	122,045	125,847	128,510	132,001	136,209	140,151
TOTAL	135,395	139,524	142,561	146,423	151,076	155,555

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,848	2,817	2,815	2,801	2,819	2,849
56. RADIO, TV, & COMMUNICATION EQ.	1,699	1,742	1,800	1,884	1,975	2,079
73. BUSINESS SERVICES	1,241	1,286	1,354	1,428	1,492	1,552
11. NEW CONSTRUCTION	220	233	251	264	274	283
51. OFFICE, COMPUTING & ACCT. MACH.	204	224	242	263	286	307
77. MISC. SERVICES	186	206	221	220	222	230
60. AIRCRAFT & PARTS	172	157	147	144	144	148
53. ELECTRICAL MACHINERY	143	147	151	150	150	153

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

69. WHOLESALE & RETAIL TRADE	588	620	651	678	714	756
73. BUSINESS SERVICES	551	577	600	632	669	711
71. REAL ESTATE & RENTAL	497	526	559	581	608	642
65. TRANSPORTATION & WAREHOUSING	362	394	415	432	451	473
68. UTILITIES	346	362	377	390	408	429
74. EATING & DRINKING PLACE	194	210	222	234	247	262
66. COMMUNICATION EXC. RADIO & TV	177	190	203	215	229	245
56. RADIO, TV, & COMMUNICATION EQ.	100	106	110	114	117	124

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MASSACHUSETTS

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	8,553	8,787	8,993	9,106	9,295	9,617
INDIRECT FROM PAY	5,620	5,778	5,899	6,074	6,304	6,599
NONDEFENSE	2,916	2,858	2,825	2,790	2,778	2,785
TOTAL	186,938	194,298	198,127	202,830	209,285	215,266
	204,028	211,722	215,845	220,800	227,663	234,267

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
56. RADIO, TV, & COMMUNICATION EQ.	2,206	2,246	2,303	2,364	2,446	2,554
73. BUSINESS SERVICES	1,470	1,586	1,678	1,687	1,705	1,761
82. FEDERAL GOVERNMENT WAGES & SALARIES	962	951	950	948	953	962
60. AIRCRAFT & PARTS	847	795	762	770	786	815
13. ORDNANCE & ACCESSORIES	509	515	532	553	577	607
53. ELECTRICAL MACHINERY	397	404	405	389	377	378
62. INSTRUMENTS & SUPPLIES	380	392	398	395	400	411
77. MISC. SERVICES	325	359	385	384	387	401

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	677	702	722	757	795	838
57. ELECTRONIC COMPONENTS & ACCESS.	537	550	566	589	622	659
69. WHOLESALE & RETAIL TRADE	512	521	528	540	557	581
71. REAL ESTATE & RENTAL	370	381	392	398	407	423
65. TRANSPORTATION & WAREHOUSING	351	373	381	389	399	413
68. UTILITIES	342	348	351	357	366	380
56. RADIO, TV, & COMMUNICATION EQ.	272	278	283	293	304	320
74. EATING & DRINKING PLACE	197	203	207	214	222	232

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MICHIGAN

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	3,536	3,539	3,557	3,632	3,747	3,869
INDIRECT FROM PAY	4,881	4,918	4,931	5,082	5,290	5,485
	4,459	4,373	4,275	4,247	4,273	4,296
NONDEFENSE						
	273,793	282,640	282,762	289,708	300,150	306,983
TOTAL	286,669	295,469	295,525	302,669	313,461	320,634

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	904	894	893	889	894	903
59. MOTOR VEHICLES & EQUIPMENT	535	497	475	487	518	541
13. ORDNANCE & ACCESSORIES	454	459	485	517	549	584
43. ENGINES & TURBINES	286	280	269	259	248	245
62. INSTRUMENTS & SUPPLIES	168	169	170	172	179	185
73. BUSINESS SERVICES	166	174	183	192	199	206
60. AIRCRAFT & PARTS	165	146	136	134	135	140
56. RADIO, TV, & COMMUNICATION EQ.	112	111	113	119	125	131

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	585	606	623	653	686	723
37. PRIMARY FERROUS METALS	378	380	372	379	389	389
59. MOTOR VEHICLES & EQUIPMENT	376	355	345	346	354	363
41. SCREW MACHINE PROD. & STAMPINGS	363	361	356	364	384	397
38. NONFERROUS METALS	271	272	268	273	282	293
47. METALWORKING MACH. & EQ.	252	247	241	245	254	263
69. WHOLESALE & RETAIL TRADE	200	199	198	206	217	228
42. OTHER FAB. METAL PRODUCTS	193	197	199	206	220	228

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MINNESOTA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	2,831	2,895	2,954	3,043	3,167	3,303
INDIRECT FROM PURCHASES	2,502	2,586	2,641	2,752	2,887	3,034
INDIRECT FROM PAY	2,057	2,013	2,001	1,989	1,986	1,995
NONDEFENSE	130,848	135,615	138,837	143,069	147,973	152,352
TOTAL	138,238	143,108	146,432	150,853	156,014	160,683

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
13. ORDNANCE & ACCESSORIES	802	782	787	812	848	885
51. OFFICE, COMPUTING & ACCT. MACH.	470	487	504	534	580	624
82. FEDERAL GOVERNMENT WAGES & SALARIES	342	338	337	337	338	340
56. RADIO, TV, & COMMUNICATION EQ.	301	308	317	325	338	354
62. INSTRUMENTS & SUPPLIES	157	159	160	162	169	176
73. BUSINESS SERVICES	147	155	163	170	176	182
77. MISC. SERVICES	99	111	119	118	118	123
53. ELECTRICAL MACHINERY	70	71	71	68	65	65

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	317	330	340	357	376	398
69. WHOLESALE & RETAIL TRADE	183	188	192	203	216	230
71. REAL ESTATE & RENTAL	138	143	147	155	164	173
51. OFFICE, COMPUTING & ACCT. MACH.	121	125	132	139	150	161
65. TRANSPORTATION & WAREHOUSING	120	130	134	141	149	157
68. UTILITIES	112	115	117	122	129	136
57. ELECTRONIC COMPONENTS & ACCESS.	106	108	111	115	121	129
24. PAPER & ALLIED PRODUCTS	90	93	96	100	105	110

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MISSISSIPPI

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	3,244	3,233	3,262	3,333	3,418	3,514
INDIRECT FROM PURCHASES	1,541	1,580	1,607	1,664	1,732	1,814
INDIRECT FROM PAY	874	856	848	842	842	847
NONDEFENSE	54,046	55,683	56,522	57,884	59,696	61,360
TOTAL	59,705	61,352	62,238	63,722	65,688	67,535

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,331	1,316	1,316	1,311	1,320	1,334
61. OTHER TRANSPORTATION EQ.	1,109	1,076	1,059	1,083	1,115	1,160
11. NEW CONSTRUCTION	222	233	254	273	288	300
73. BUSINESS SERVICES	164	168	176	188	198	206
38. NONFERROUS METALS	74	78	79	81	82	84
31. PET REFINING & REL. PROD.	52	54	56	57	58	59
68. UTILITIES	50	52	55	58	60	62
65. TRANSPORTATION & WAREHOUSING	26	32	32	33	34	35

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

69. WHOLESALE & RETAIL TRADE	271	274	276	284	296	311
65. TRANSPORTATION & WAREHOUSING	157	165	167	172	178	186
68. UTILITIES	157	159	160	164	170	178
71. REAL ESTATE & RENTAL	100	101	102	106	109	114
73. BUSINESS SERVICES	89	93	95	99	104	109
53. ELECTRICAL MACHINERY	57	57	58	58	61	64
66. COMMUNICATION EXC. RADIO & TV	46	48	49	52	55	59
8. CRUDE PETROLEUM & N. GAS	44	45	47	47	47	48

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MISSOURI

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	6,474	6,485	6,534	6,665	6,814	7,011
INDIRECT FROM PURCHASES	3,622	3,638	3,641	3,742	3,864	4,023
INDIRECT FROM PAY	2,362	2,321	2,298	2,282	2,281	2,289
NONDEFENSE	145,516	150,377	152,532	156,280	161,204	165,465
TOTAL	157,974	162,820	165,005	168,969	174,163	178,789

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE	2,243	2,214	2,206	2,261	2,302	2,372
60. AIRCRAFT & PARTS	1,472	1,456	1,454	1,447	1,455	1,470
82. FEDERAL GOVERNMENT WAGES & SALARIES	829	806	813	846	889	929
13. ORDINANCE & ACCESSORIES	565	580	593	596	603	623
56. RADIO, TV, & COMMUNICATION EQ.	277	271	268	265	266	270
53. ELECTRICAL MACHINERY	269	277	292	310	326	339
73. BUSINESS SERVICES	137	144	157	168	178	185
11. NEW CONSTRUCTION	111	147	150	155	159	163
65. TRANSPORTATION & WAREHOUSING						
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES	389	407	420	440	464	490
73. BUSINESS SERVICES	379	370	363	371	382	398
69. WHOLESALE & RETAIL TRADE	279	284	280	286	294	304
65. TRANSPORTATION & WAREHOUSING	265	258	252	256	263	273
68. UTILITIES	216	211	208	212	217	225
71. REAL ESTATE & RENTAL	206	201	196	201	206	215
74. EATING & DRINKING PLACE	148	148	150	153	151	150
60. AIRCRAFT & PARTS	146	147	150	155	163	173
57. ELECTRONIC COMPONENTS & ACCESS.						

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

MONTANA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	289	295	302	310	317	324
INDIRECT FROM PURCHASES	223	233	240	250	260	271
INDIRECT FROM PAY	267	268	270	266	266	269
NONDEFENSE	17,668	18,623	19,158	19,450	20,046	20,674
TOTAL	18,446	19,419	19,970	20,275	20,889	21,538

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	185	183	183	184	184	186
11. NEW CONSTRUCTION	33	35	37	40	42	44
73. BUSINESS SERVICES	11	11	12	13	13	14
68. UTILITIES	11	11	12	12	13	14
31. PET REFINING & REL. PROD.	8	9	9	9	9	9
65. TRANSPORTATION & WAREHOUSING	8	12	12	13	13	14
62. INSTRUMENTS & SUPPLIES	6	6	6	6	7	7
53. ELECTRICAL MACHINERY	4	4	4	4	4	5
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	35	37	39	42	45	47
38. NONFERROUS METALS	21	20	19	19	20	22
8. CRUDE PETROLEUM & N. GAS	20	19	19	18	17	16
6. NONFERROUS METAL MINING	16	16	16	16	16	17
31. PET REFINING & REL. PROD.	15	17	18	20	21	23
20. LUMBER & WOOD PRODUCTS	13	13	14	14	15	16
68. UTILITIES	11	12	12	13	13	14
1. AGRICULTURAL PRODUCTS	11	13	15	15	16	17

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NEBRASKA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	895	912	925	943	963	982
INDIRECT FROM PURCHASES	564	588	603	631	660	690
INDIRECT FROM PAY	757	739	735	728	725	727
NONDEFENSE	45,051	46,552	47,556	48,751	50,228	51,573
TOTAL	47,268	48,791	49,819	51,053	52,576	53,973

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	644	636	637	639	643	650
73. BUSINESS SERVICES	81	84	89	94	98	102
11. NEW CONSTRUCTION	40	42	46	49	52	54
65. TRANSPORTATION & WAREHOUSING	20	31	32	33	34	35
51. OFFICE, COMPUTING & ACCT. MACH.	18	18	19	20	22	23
68. UTILITIES	14	14	15	16	17	17
14. FOOD & KINDRED PRODUCTS	13	17	18	20	21	22
62. INSTRUMENTS & SUPPLIES	12	12	12	12	13	13
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	108	112	115	120	126	134
57. ELECTRONIC COMPONENTS & ACCESS.	54	54	54	55	57	59
1. AGRICULTURAL PRODUCTS	38	43	46	50	53	55
70. FINANCE & INSURANCE	36	37	38	39	41	43
56. RADIO, TV, & COMMUNICATION EQ.	25	25	25	25	26	27
14. FOOD & KINDRED PRODUCTS	25	27	27	29	30	32
38. NONFERROUS METALS	21	21	21	22	23	23
69. WHOLESALE & RETAIL TRADE	19	20	21	23	24	25

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NEVADA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	594	602	612	628	640	652
INDIRECT FROM PURCHASES	306	317	331	346	363	384
INDIRECT FROM PAY	448	444	450	456	467	480
NONDEFENSE	27,450	28,547	29,684	31,078	32,801	34,463
TOTAL	28,799	29,911	31,077	32,509	34,270	35,978

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	421	415	415	417	418	421
73. BUSINESS SERVICES	52	54	57	60	63	66
11. NEW CONSTRUCTION	31	33	36	38	41	42
72. PERSONAL SERVICES EXC. AUTO.	17	19	20	23	25	26
68. UTILITIES	14	14	15	16	16	17
65. TRANSPORTATION & WAREHOUSING	10	16	16	17	18	19
56. RADIO, TV, & COMMUNICATION EQ.	9	9	9	9	10	11
76. AMUSEMENTS	5	6	6	7	8	8

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	72	76	80	86	92	100
6. NONFERROUS METAL MINING	32	31	33	33	34	35
38. NONFERROUS METALS	20	20	21	21	22	24
68. UTILITIES	15	16	17	17	18	19
53. ELECTRICAL MACHINERY	14	14	15	15	16	16
69. WHOLESALE & RETAIL TRADE	13	14	15	16	16	17
70. FINANCE & INSURANCE	13	14	14	16	17	18
60. AIRCRAFT & PARTS	12	11	10	10	10	10

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NEW HAMPSHIRE

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	1,141	1,160	1,185	1,221	1,264	1,311
INDIRECT FROM PURCHASES	891	920	944	983	1,031	1,085
INDIRECT FROM PAY	446	443	443	441	442	446
NONDEFENSE	30,796	32,404	33,432	34,542	35,902	37,115
TOTAL	33,274	34,927	36,004	37,188	38,639	39,957

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
56. RADIO, TV, & COMMUNICATION EQ.	473	482	494	515	540	565
82. FEDERAL GOVERNMENT WAGES & SALARIES	286	282	282	282	283	286
73. BUSINESS SERVICES	56	60	63	65	67	69
51. OFFICE, COMPUTING & ACCT. MACH.	55	57	60	63	68	73
60. AIRCRAFT & PARTS	41	42	41	40	41	42
13. ORDNANCE & ACCESSORIES	39	38	38	39	41	43
62. INSTRUMENTS & SUPPLIES	32	33	33	33	34	35
63. OPTICAL, OPHTHALMIC & PHOTO EQ.	23	25	28	30	32	34

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

57. ELECTRONIC COMPONENTS & ACCESS.	134	139	143	150	159	168
73. BUSINESS SERVICES	66	71	74	79	83	89
69. WHOLESALE & RETAIL TRADE	63	64	66	69	73	77
53. ELECTRICAL MACHINERY	47	48	49	50	51	54
56. RADIO, TV, & COMMUNICATION EQ.	42	44	45	46	47	49
38. NONFERROUS METALS	42	42	42	42	42	44
71. REAL ESTATE & RENTAL	41	42	43	45	48	50
32. RUBBER & MISC. PLASTICS PROD.	40	42	44	47	50	53

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NEW JERSEY

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	5,961	6,094	6,212	6,335	6,502	6,708
INDIRECT FROM PURCHASES	4,935	5,083	5,213	5,409	5,632	5,900
INDIRECT FROM PAY	3,814	3,739	3,722	3,702	3,703	3,735
NONDEFENSE	239,855	247,828	253,690	260,483	269,309	278,048
TOTAL	254,565	262,744	268,837	275,929	285,146	294,391

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
56. RADIO, TV, & COMMUNICATION EQ.	1,920	1,945	1,989	2,039	2,106	2,196
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,601	1,584	1,582	1,572	1,582	1,599
73. BUSINESS SERVICES	574	599	631	662	688	715
62. INSTRUMENTS & SUPPLIES	415	419	421	427	444	460
53. ELECTRICAL MACHINERY	211	209	207	201	197	199
65. TRANSPORTATION & WAREHOUSING	124	179	182	190	196	200
60. AIRCRAFT & PARTS	108	98	92	92	95	99
11. NEW CONSTRUCTION	105	111	121	127	132	136

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	885	923	955	1,005	1,059	1,121
69. WHOLESALE & RETAIL TRADE	306	315	322	334	348	364
57. ELECTRONIC COMPONENTS & ACCESS.	289	289	295	305	320	338
27. CHEMICALS & PRODUCTS	286	297	312	324	335	348
68. UTILITIES	214	219	223	230	239	249
38. NONFERROUS METALS	212	213	211	213	217	224
65. TRANSPORTATION & WAREHOUSING	209	228	235	243	253	262
71. REAL ESTATE & RENTAL	206	212	219	226	234	243

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NEW MEXICO

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	1,556	1,579	1,614	1,638	1,668	1,705
INDIRECT FROM PURCHASES	669	688	707	732	770	810
INDIRECT FROM PAY	487	485	487	484	491	502
NONDEFENSE						
	32,518	34,068	35,046	35,940	37,557	39,187
TOTAL	35,230	36,821	37,853	38,794	40,487	42,204

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	906	895	895	895	900	909
73. BUSINESS SERVICES	187	198	209	215	222	230
11. NEW CONSTRUCTION	108	114	123	132	139	145
56. RADIO, TV, & COMMUNICATION EQ.	62	64	66	64	64	65
68. UTILITIES	60	61	65	69	72	75
62. INSTRUMENTS & SUPPLIES	44	46	48	50	53	56
60. AIRCRAFT & PARTS	23	20	18	18	18	19
77. MISC. SERVICES	23	25	27	27	27	28
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	117	124	128	135	143	153
68. UTILITIES	61	63	64	67	70	72
6. NONFERROUS METAL MINING	57	57	56	58	64	69
69. WHOLESALE & RETAIL TRADE	52	54	56	58	61	64
8. CRUDE PETROLEUM & N. GAS	45	41	40	40	42	43
65. TRANSPORTATION & WAREHOUSING	36	39	41	43	44	46
71. REAL ESTATE & RENTAL	36	37	39	40	42	43
60. AIRCRAFT & PARTS	35	31	29	28	28	29

Source: Defense Economic Impact Modeling System (DEIMS). June 5, 1987.

NEW YORK

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	11,325	11,461	11,604	11,845	12,168	12,583
INDIRECT FROM PAY	9,910	10,123	10,327	10,703	11,133	11,655
NONDEFENSE						
TOTAL	513,405	529,938	542,389	557,325	575,375	592,583
TOTAL	543,015	559,729	572,492	587,993	606,780	624,973

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
56. RADIO, TV, & COMMUNICATION EQ.	3,331	3,360	3,435	3,538	3,670	3,828
60. AIRCRAFT & PARTS	1,995	1,896	1,830	1,826	1,840	1,898
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,530	1,512	1,512	1,509	1,518	1,534
73. BUSINESS SERVICES	1,013	1,056	1,113	1,169	1,216	1,264
53. ELECTRICAL MACHINERY	470	461	456	450	447	453
62. INSTRUMENTS & SUPPLIES	415	421	423	425	436	451
51. OFFICE, COMPUTING & ACCT. MACH.	258	275	291	304	325	348
65. TRANSPORTATION & WAREHOUSING	229	321	325	339	350	358

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	2,146	2,236	2,323	2,455	2,588	2,744
69. WHOLESALE & RETAIL TRADE	724	732	738	764	797	835
57. ELECTRONIC COMPONENTS & ACCESS.	692	690	702	719	749	787
70. FINANCE & INSURANCE	514	535	551	576	602	635
65. TRANSPORTATION & WAREHOUSING	490	520	528	545	566	588
71. REAL ESTATE & RENTAL	470	477	487	503	521	544
68. UTILITIES	458	461	463	475	492	512
38. NONFERROUS METALS	285	289	290	293	297	308

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NORTH CAROLINA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	4,112	4,156	4,217	4,301	4,382	4,471
INDIRECT FROM PURCHASES	2,848	2,959	3,052	3,204	3,364	3,532
INDIRECT FROM PAY	3,381	3,322	3,319	3,309	3,306	3,329
NONDEFENSE	199,365	206,497	211,551	217,448	224,382	231,081
TOTAL	209,706	216,933	222,140	228,261	235,433	242,413

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,923	2,887	2,896	2,916	2,937	2,970
56. RADIO, TV, & COMMUNICATION EQ.	267	270	276	282	291	303
11. NEW CONSTRUCTION	181	191	208	224	236	246
73. BUSINESS SERVICES	143	149	157	164	171	178
77. MISC. SERVICES	68	76	81	81	82	85
68. UTILITIES	63	64	68	72	75	78
65. TRANSPORTATION & WAREHOUSING	52	80	81	85	89	90
51. OFFICE, COMPUTING & ACCT. MACH.	38	40	41	44	47	51

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	343	360	374	397	418	443
57. ELECTRONIC COMPONENTS & ACCESS.	209	215	218	229	246	260
16. FABRIC, YARN & THREAD MILLS	172	182	184	194	203	212
28. PLASTICS & SYNTHETIC MATLS.	151	157	165	174	182	193
38. NONFERROUS METALS	136	137	139	143	148	153
53. ELECTRICAL MACHINERY	136	139	140	145	154	161
32. RUBBER & MISC. PLASTICS PROD.	114	118	125	132	141	151
56. RADIO, TV, & COMMUNICATION EQ.	113	114	116	122	130	138

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

NORTH DAKOTA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	423	427	435	446	455	465
INDIRECT FROM PURCHASES	175	180	186	195	203	212
INDIRECT FROM PAY	236	230	229	226	226	228
NONDEFENSE	15,286	15,682	16,016	16,421	16,996	17,552
TOTAL	16,120	16,520	16,866	17,288	17,881	18,458

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	304	300	302	304	307	311
11. NEW CONSTRUCTION	30	32	35	37	40	41
68. UTILITIES	25	25	27	28	30	31
73. BUSINESS SERVICES	22	23	24	26	27	28
59. MOTOR VEHICLES & EQUIPMENT	8	8	8	8	8	9
65. TRANSPORTATION & WAREHOUSING	6	9	9	10	10	10
31. PET REFINING & REL. PROD.	5	5	6	6	6	6
77. MISC. SERVICES	3	3	3	4	4	4
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	26	26	27	28	30	32
8. CRUDE PETROLEUM & N. GAS	25	24	24	25	25	25
68. UTILITIES	19	20	20	22	23	24
69. WHOLESALE & RETAIL TRADE	11	12	12	13	14	15
1. AGRICULTURAL PRODUCTS	10	11	12	13	13	14
7. COAL MINING	9	9	9	10	10	11
70. FINANCE & INSURANCE	9	9	9	9	10	10
65. TRANSPORTATION & WAREHOUSING	8	9	9	10	10	11

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

OHIO

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	7,325	7,353	7,391	7,435	7,567	7,787
INDIRECT FROM PAY	7,404	7,483	7,548	7,735	7,971	8,266
	4,894	4,771	4,686	4,632	4,623	4,636
NONDEFENSE						
	317,109	326,069	328,946	335,759	345,571	353,788
TOTAL	336,732	345,676	348,571	355,560	365,732	374,477

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,930	1,910	1,906	1,891	1,902	1,922
60. AIRCRAFT & PARTS	1,672	1,559	1,488	1,474	1,483	1,529
77. MISC. SERVICES	789	880	945	934	936	971
73. BUSINESS SERVICES	474	495	522	546	567	589
59. MOTOR VEHICLES & EQUIPMENT	274	255	244	250	265	276
56. RADIO, TV, & COMMUNICATION EQ.	271	274	279	286	295	307
13. ORDNANCE & ACCESSORIES	255	254	258	268	280	293
47. METALWORKING MACH. & EQ.	225	211	202	195	193	198

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	764	793	815	855	897	946
37. PRIMARY FERROUS METALS	762	769	759	764	776	781
38. NONFERROUS METALS	459	464	460	465	476	496
60. AIRCRAFT & PARTS	367	341	330	323	315	316
32. RUBBER & MISC. PLASTICS PROD.	352	361	374	389	408	430
69. WHOLESALE & RETAIL TRADE	322	324	325	333	346	362
41. SCREW MACHINE PROD. & STAMPINGS	284	282	278	283	290	297
27. CHEMICALS & PRODUCTS	277	287	297	307	315	326

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

OKLAHOMA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	2,495	2,502	2,529	2,561	2,609	2,659
INDIRECT FROM PURCHASES	1,581	1,600	1,640	1,700	1,756	1,833
INDIRECT FROM PAY	1,157	1,144	1,143	1,139	1,143	1,161
NONDEFENSE	77,824	80,678	82,680	84,874	87,658	90,586
TOTAL	83,057	85,924	87,991	90,274	93,167	96,239

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	1,850	1,830	1,829	1,823	1,835	1,854
73. BUSINESS SERVICES	167	172	180	192	202	211
11. NEW CONSTRUCTION	115	121	131	141	149	155
68. UTILITIES	57	58	61	65	68	71
56. RADIO, TV, & COMMUNICATION EQ.	40	39	40	43	46	48
31. PET REFINING & REL. PROD.	40	42	43	44	45	45
60. AIRCRAFT & PARTS	40	35	33	33	34	36
65. TRANSPORTATION & WAREHOUSING	26	40	41	42	44	45

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

8. CRUDE PETROLEUM & N. GAS	349	350	365	371	367	375
73. BUSINESS SERVICES	197	206	213	223	237	252
60. AIRCRAFT & PARTS	184	165	155	155	157	162
31. PET REFINING & REL. PROD.	73	75	76	79	82	84
68. UTILITIES	56	58	59	62	65	68
69. WHOLESALE & RETAIL TRADE	45	47	49	53	56	59
70. FINANCE & INSURANCE	44	46	48	51	54	57
32. RUBBER & MISC. PLASTICS PROD.	43	44	46	48	51	54

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

OREGON

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	908	924	929	944	963	984
INDIRECT FROM PURCHASES	1,101	1,126	1,140	1,179	1,221	1,269
INDIRECT FROM PAY	1,080	1,067	1,055	1,041	1,039	1,044
NONDEFENSE	69,980	72,649	73,728	75,147	77,599	79,923
TOTAL	73,069	75,765	76,852	78,310	80,821	83,220

LARGEST SECTOR'S
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	483	476	474	472	472	475
53. ELECTRICAL MACHINERY	116	110	107	108	109	112
11. NEW CONSTRUCTION	57	60	65	70	74	77
61. OTHER TRANSPORTATION EQ.	49	49	48	48	50	53
73. BUSINESS SERVICES	35	37	40	41	42	44
65. TRANSPORTATION & WAREHOUSING	26	39	40	41	43	43
51. OFFICE, COMPUTING & ACCT. MACH.	16	17	17	18	20	21
62. INSTRUMENTS & SUPPLIES	15	15	15	15	16	17

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	178	185	187	192	201	211
57. ELECTRONIC COMPONENTS & ACCESS.	106	104	101	104	109	111
20. LUMBER & WOOD PRODUCTS	101	105	109	115	120	126
53. ELECTRICAL MACHINERY	86	89	92	94	98	104
38. NONFERROUS METALS	63	64	66	67	68	70
60. AIRCRAFT & PARTS	59	54	50	49	48	47
70. FINANCE & INSURANCE	47	50	52	55	57	61
37. PRIMARY FERROUS METALS	46	47	47	49	49	49

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

PENNSYLVANIA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	7,404	7,482	7,561	7,663	7,838	8,065
INDIRECT FROM PURCHASES	6,856	6,973	7,098	7,310	7,552	7,874
INDIRECT FROM PAY	5,190	5,092	5,059	5,022	5,017	5,047
NONDEFENSE						
	329,165	340,561	347,806	356,270	367,320	377,752
TOTAL	348,615	360,108	367,524	376,266	387,727	398,738

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,630	2,603	2,598	2,574	2,589	2,616
13. ORDNANCE & ACCESSORIES	659	649	661	692	724	763
73. BUSINESS SERVICES	560	584	615	646	672	699
60. AIRCRAFT & PARTS	466	424	397	396	401	414
56. RADIO, TV, & COMMUNICATION EQ.	462	465	475	489	507	529
53. ELECTRICAL MACHINERY	357	345	338	334	334	340
77. MISC. SERVICES	321	357	384	381	383	397
51. OFFICE, COMPUTING & ACCT. MACH	231	242	255	271	293	315

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	954	997	1,031	1,083	1,140	1,208
37. PRIMARY FERROUS METALS	715	711	703	707	714	720
57. ELECTRONIC COMPONENTS & ACCESS.	414	414	421	429	444	466
69. WHOLESALE & RETAIL TRADE	310	318	321	332	347	364
38. NONFERROUS METALS	296	297	295	298	302	316
68. UTILITIES	233	237	239	245	254	264
65. TRANSPORTATION & WAREHOUSING	232	250	255	264	274	284
71. REAL ESTATE & RENTAL	223	230	236	244	253	264

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

RHODE ISLAND

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	890	904	922	945	971	1,000
INDIRECT FROM PURCHASES	599	617	636	668	702	738
INDIRECT FROM PAY	475	466	468	473	480	489
NONDEFENSE	27,144	28,180	29,054	30,284	31,734	32,979
TOTAL	29,109	30,166	31,081	32,370	33,888	35,207

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	385	380	381	380	383	387
56. RADIO, TV, & COMMUNICATION EQ.	186	189	194	202	210	220
73. BUSINESS SERVICES	134	138	145	154	162	169
49. GENERAL INDUSTRY MACHINERY	28	29	30	31	33	34
61. OTHER TRANSPORTATION EQ.	24	24	24	24	25	26
11. NEW CONSTRUCTION	18	19	21	22	23	24
62. INSTRUMENTS & SUPPLIES	17	18	18	18	18	19
53. ELECTRICAL MACHINERY	12	13	13	12	11	11

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

38. NONFERROUS METALS	78	79	80	83	86	89
73. BUSINESS SERVICES	69	71	75	81	87	94
57. ELECTRONIC COMPONENTS & ACCESS.	42	43	45	48	52	55
69. WHOLESALE & RETAIL TRADE	35	36	37	38	40	42
32. RUBBER & MISC. PLASTICS PROD.	24	25	27	29	30	32
71. REAL ESTATE & RENTAL	24	25	26	27	28	29
42. OTHER FAB. METAL PRODUCTS	24	24	24	25	26	27
65. TRANSPORTATION & WAREHOUSING	23	25	25	27	28	29

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

SOUTH CAROLINA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	3,210	3,223	3,269	3,337	3,406	3,477
INDIRECT FROM PAY	1,733	1,797	1,856	1,942	2,037	2,140
	1,492	1,473	1,476	1,473	1,478	1,494
NONDEFENSE	89,997	93,340	95,873	98,669	102,210	105,626
TOTAL	96,432	99,833	102,475	105,421	109,130	112,736

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,351	2,323	2,327	2,335	2,351	2,377
11. NEW CONSTRUCTION	337	352	377	404	425	442
73. BUSINESS SERVICES	122	125	131	140	147	153
61. OTHER TRANSPORTATION EQ.	53	53	53	55	58	62
68. UTILITIES	47	49	52	55	57	59
62. INSTRUMENTS & SUPPLIES	45	45	45	46	49	51
65. TRANSPORTATION & WAREHOUSING	28	41	42	44	46	47
13. ORDNANCE & ACCESSORIES	27	27	27	29	31	33

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

28. PLASTICS & SYNTHETIC MATLS.	176	181	190	199	209	221
73. BUSINESS SERVICES	170	177	184	195	206	218
57. ELECTRONIC COMPONENTS & ACCESS.	131	136	136	136	144	153
16. FABRIC, YARN & THREAD MILLS	122	130	132	140	147	154
27. CHEMICALS & PRODUCTS	103	108	114	119	124	129
38. NONFERROUS METALS	90	91	92	95	98	102
69. WHOLESALE & RETAIL TRADE	86	90	95	102	108	113
32. RUBBER & MISC. PLASTICS PROD.	79	80	84	87	91	96

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

SOUTH DAKOTA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	306	311	317	325	332	339
INDIRECT FROM PURCHASES	208	217	225	236	247	258
INDIRECT FROM PAY	307	300	302	298	298	301
NONDEFENSE	18,038	18,699	19,361	19,816	20,476	21,177
TOTAL	18,859	19,527	20,205	20,675	21,353	22,075

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	221	218	219	220	222	224
11. NEW CONSTRUCTION	31	33	36	38	40	42
68. UTILITIES	12	12	13	13	14	14
73. BUSINESS SERVICES	11	11	11	12	13	13
65. TRANSPORTATION & WAREHOUSING	6	9	9	10	10	10
14. FOOD & KINDRED PRODUCTS	4	5	5	6	6	6
71. REAL ESTATE & RENTAL	2	2	2	2	2	3
72. PERSONAL SERVICES EXC. AUTO.	2	2	2	2	2	3
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
57. ELECTRONIC COMPONENTS & ACCESS.	33	34	34	35	37	39
1. AGRICULTURAL PRODUCTS	31	35	38	41	42	44
73. BUSINESS SERVICES	24	25	25	27	28	30
6. NONFERROUS METAL MINING	17	16	17	17	17	17
70. FINANCE & INSURANCE	10	11	11	12	12	13
60. AIRCRAFT & PARTS	10	9	8	8	8	8
68. UTILITIES	10	10	11	11	12	12
69. WHOLESALE & RETAIL TRADE	8	9	10	10	11	12

Source: Defense Economic Impact Modeling System (DEIMS). June 5, 1987.

TENNESSEE

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	2,180	2,241	2,293	2,346	2,401	2,459
INDIRECT FROM PAY	2,387	2,452	2,502	2,586	2,678	2,792
NONDEFENSE						
TOTAL	129,891	134,994	137,777	141,015	145,561	149,904
TOTAL	136,605	141,803	144,678	148,039	152,730	157,260

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	927	914	912	911	914	920
27. CHEMICALS & PRODUCTS	220	229	241	252	263	269
73. BUSINESS SERVICES	209	226	240	241	244	252
68. UTILITIES	155	158	165	174	182	188
13. ORDNANCE & ACCESSORIES	145	138	140	147	154	162
11. NEW CONSTRUCTION	123	129	139	150	158	164
65. TRANSPORTATION & WAREHOUSING	53	80	81	85	88	90
77. MISC. SERVICES	42	46	49	50	51	53
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	287	303	314	332	351	372
38. NONFERROUS METALS	172	172	172	176	180	187
27. CHEMICALS & PRODUCTS	161	165	170	174	177	183
28. PLASTICS & SYNTHETIC MATLS.	140	141	145	148	152	160
68. UTILITIES	139	142	146	152	159	164
60. AIRCRAFT & PARTS	108	97	93	91	91	93
32. RUBBER & MISC. PLASTICS PROD.	94	99	105	110	116	124
53. ELECTRICAL MACHINERY	78	81	81	82	84	86

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

TEXAS

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	15,843	15,944	16,111	16,387	16,714	17,150
INDIRECT FROM PAY	10,573	10,823	11,115	11,511	11,900	12,408
	7,275	7,183	7,192	7,164	7,177	7,256
NONDEFENSE						
	484,359	501,716	515,257	528,643	545,654	562,536
TOTAL	518,051	535,665	549,675	563,705	581,444	599,350

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	6,506	6,424	6,421	6,429	6,460	6,517
60. AIRCRAFT & PARTS	2,554	2,420	2,308	2,305	2,328	2,401
56. RADIO, TV, & COMMUNICATION EQ.	1,801	1,815	1,859	1,934	2,021	2,115
73. BUSINESS SERVICES	966	1,020	1,078	1,113	1,145	1,187
31. PET REFINING & REL. PROD.	764	790	814	837	854	865
11. NEW CONSTRUCTION	468	493	536	576	607	633
13. ORDNANCE & ACCESSORIES	372	360	366	379	387	409
51. OFFICE, COMPUTING & ACCT. MACH.	299	330	357	370	389	415

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	1,486	1,556	1,619	1,707	1,802	1,916
8. CRUDE PETROLEUM & N. GAS	1,453	1,448	1,516	1,543	1,530	1,560
69. WHOLESALE & RETAIL TRADE	594	606	618	642	668	700
31. PET REFINING & REL. PROD.	566	586	589	591	606	617
68. UTILITIES	530	538	546	563	584	607
65. TRANSPORTATION & WAREHOUSING	476	509	521	540	559	578
71. REAL ESTATE & RENTAL	470	483	497	513	528	547
57. ELECTRONIC COMPONENTS & ACCESS.	466	475	490	514	545	573

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

UTAH

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	1,781	1,805	1,832	1,848	1,889	1,937
INDIRECT FROM PURCHASES	945	956	965	991	1,028	1,079
INDIRECT FROM PAY	631	626	630	628	634	647
NONDEFENSE	42,376	44,330	45,775	47,186	49,266	51,436
TOTAL	45,733	47,717	49,202	50,653	52,817	55,099

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE

82. FEDERAL GOVERNMENT WAGES & SALARIES	989	980	978	967	974	985
62. INSTRUMENTS & SUPPLIES	139	141	143	146	153	159
73. BUSINESS SERVICES	128	133	140	148	154	161
56. RADIO, TV, & COMMUNICATION EQ.	59	59	60	63	67	71
51. OFFICE, COMPUTING & ACCT. MACH.	53	57	61	64	68	73
77. MISC. SERVICES	53	59	63	63	63	65
11. NEW CONSTRUCTION	42	44	48	51	54	56
60. AIRCRAFT & PARTS	38	32	29	29	29	31

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

60. AIRCRAFT & PARTS	165	146	131	125	124	126
73. BUSINESS SERVICES	97	102	107	113	120	128
69. WHOLESALE & RETAIL TRADE	64	66	68	70	73	76
68. UTILITIES	63	64	66	68	70	73
65. TRANSPORTATION & WAREHOUSING	48	52	54	56	58	60
71. REAL ESTATE & RENTAL	48	50	51	53	55	57
38. NONFERROUS METALS	33	34	34	35	37	39
6. NONFERROUS METAL MINING	32	31	31	32	32	34

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

VERMONT
SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	295	294	297	307	319	330
INDIRECT FROM PURCHASES	398	401	409	425	446	470
INDIRECT FROM PAY	212	209	209	209	210	212
NONDEFENSE	14,073	14,640	15,124	15,688	16,313	16,870
TOTAL	14,978	15,545	16,039	16,629	17,288	17,882

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
13. ORDNANCE & ACCESSORIES	133	130	132	139	146	153
82. FEDERAL GOVERNMENT WAGES & SALARIES	66	65	65	65	65	66
62. INSTRUMENTS & SUPPLIES	29	29	29	30	31	33
53. ELECTRICAL MACHINERY	17	16	16	17	17	18
60. AIRCRAFT & PARTS	6	5	5	5	5	5
65. TRANSPORTATION & WAREHOUSING	6	8	8	8	9	9
77. MISC. SERVICES	5	5	6	6	6	6
47. METALWORKING MACH. & EQ.	4	4	4	4	4	4

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

57. ELECTRONIC COMPONENTS & ACCESS.	142	145	151	158	169	181
60. AIRCRAFT & PARTS	34	30	27	25	25	25
73. BUSINESS SERVICES	25	26	27	29	31	32
38. NONFERROUS METALS	20	20	20	20	20	21
13. ORDNANCE & ACCESSORIES	18	19	18	18	19	20
69. WHOLESALE & RETAIL TRADE	14	14	14	15	15	16
65. TRANSPORTATION & WAREHOUSING	10	11	11	11	12	12
68. UTILITIES	10	10	10	10	11	11

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

VIRGINIA

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT						
INDIRECT FROM PURCHASES	16,118	16,271	16,539	16,820	17,186	17,643
INDIRECT FROM PAY	4,107	4,267	4,423	4,642	4,868	5,126
	2,641	2,602	2,606	2,607	2,615	2,637
NONDEFENSE						
	170,305	176,139	180,817	186,701	193,212	199,325
TOTAL	193,171	199,280	204,385	210,770	217,881	224,731

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	9,015	8,917	8,926	8,914	8,980	9,083
73. BUSINESS SERVICES	2,542	2,641	2,780	2,933	3,065	3,192
61. OTHER TRANSPORTATION EQ.	1,572	1,569	1,548	1,575	1,628	1,710
56. RADIO, TV, & COMMUNICATION EQ.	1,157	1,183	1,225	1,266	1,302	1,358
77. MISC. SERVICES	360	396	425	425	429	445
11. NEW CONSTRUCTION	260	274	299	319	334	347
51. OFFICE, COMPUTING & ACCT. MACH.	231	247	264	290	316	339
53. ELECTRICAL MACHINERY	116	119	120	113	108	107

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

73. BUSINESS SERVICES	537	569	595	630	669	714
69. WHOLESALE & RETAIL TRADE	509	524	537	562	592	625
71. REAL ESTATE & RENTAL	429	442	459	480	504	529
65. TRANSPORTATION & WAREHOUSING	350	374	387	405	424	444
68. UTILITIES	316	325	333	346	362	379
66. COMMUNICATION EXC. RADIO & TV	177	186	197	209	223	238
28. PLASTICS & SYNTHETIC MATLS.	159	162	169	176	182	192
74. EATING & DRINKING PLACE	149	157	164	173	183	194

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

WASHINGTON

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	7,216	7,263	7,335	7,387	7,503	7,691
INDIRECT FROM PURCHASES	3,472	3,493	3,496	3,572	3,679	3,836
INDIRECT FROM PAY	1,646	1,618	1,613	1,608	1,620	1,642
NONDEFENSE	108,881	112,853	115,682	119,730	124,657	129,493
TOTAL	121,216	125,227	128,126	132,298	137,459	142,662

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	2,755	2,723	2,722	2,719	2,735	2,761
13. ORDNANCE & ACCESSORIES	874	863	865	866	878	903
60. AIRCRAFT & PARTS	691	635	590	559	542	549
61. OTHER TRANSPORTATION EQ.	595	596	586	588	610	641
73. BUSINESS SERVICES	572	593	623	656	684	711
56. RADIO, TV, & COMMUNICATION EQ.	334	351	375	394	416	438
11. NEW CONSTRUCTION	231	243	265	283	296	308
53. ELECTRICAL MACHINERY	217	226	232	228	225	228

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

60. AIRCRAFT & PARTS	766	693	637	629	631	641
69. WHOLESAL & RETAIL TRADE	335	347	356	360	367	380
73. BUSINESS SERVICES	305	314	320	333	351	372
13. ORDNANCE & ACCESSORIES	264	260	244	252	270	293
65. TRANSPORTATION & WAREHOUSING	219	237	244	247	251	258
68. UTILITIES	208	215	219	220	224	230
71. REAL ESTATE & RENTAL	208	217	224	227	230	237
38. NONFERROUS METALS	153	150	151	155	160	167

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

WEST VIRGINIA

SUMMARY (MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	395	404	410	418	426	434
INDIRECT FROM PURCHASES	910	895	937	980	1,022	1,060
INDIRECT FROM PAY	605	582	582	582	584	586
NONDEFENSE	42,564	42,810	44,066	45,522	47,172	48,300
TOTAL	44,474	44,691	45,995	47,501	49,204	50,380

LARGEST SECTORS (MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	219	216	215	214	214	216
27. CHEMICALS & PRODUCTS	39	41	43	45	47	48
11. NEW CONSTRUCTION	37	39	42	45	48	50
32. RUBBER & MISC. PLASTICS PROD.	13	12	12	12	13	14
73. BUSINESS SERVICES	12	12	13	14	15	15
65. TRANSPORTATION & WAREHOUSING	12	18	18	19	20	20
60. AIRCRAFT & PARTS	7	7	6	6	5	5
53. ELECTRICAL MACHINERY	5	6	6	5	5	5

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

7. COAL MINING	230	208	234	248	264	272
27. CHEMICALS & PRODUCTS	116	119	123	128	133	138
38. NONFERROUS METALS	93	94	95	97	101	105
37. PRIMARY FERROUS METALS	92	92	91	93	95	96
73. BUSINESS SERVICES	66	68	70	74	78	83
28. PLASTICS & SYNTHETIC MATLS.	46	46	48	51	54	57
8. CRUDE PETROLEUM & N. GAS	23	19	21	22	22	21
35. GLASS & GLASS PRODUCTS	20	20	20	21	22	23

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

WISCONSIN

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	1,701	1,706	1,710	1,748	1,806	1,867
INDIRECT FROM PURCHASES	2,560	2,614	2,648	2,736	2,845	2,968
INDIRECT FROM PAY	2,335	2,289	2,273	2,249	2,241	2,252
NONDEFENSE	145,083	150,233	153,288	156,947	161,621	165,962
TOTAL	151,679	156,841	159,919	163,681	168,513	173,048

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE						
82. FEDERAL GOVERNMENT WAGES & SALARIES	386	381	381	382	384	387
59. MOTOR VEHICLES & EQUIPMENT	258	240	230	235	251	261
61. OTHER TRANSPORTATION EQ.	221	220	228	229	232	242
62. INSTRUMENTS & SUPPLIES	131	131	131	135	142	148
47. METALWORKING MACH. & EQ.	97	92	88	85	85	87
53. ELECTRICAL MACHINERY	88	83	81	81	83	85
13. ORDNANCE & ACCESSORIES	61	59	60	63	67	70
51. OFFICE, COMPUTING & ACCT. MACH.	56	58	60	63	69	74
INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES						
73. BUSINESS SERVICES	293	308	318	334	351	370
53. ELECTRICAL MACHINERY	210	213	213	212	217	225
37. PRIMARY FERROUS METALS	172	172	171	173	176	178
24. PAPER & ALLIED PRODUCTS	147	153	157	163	171	180
69. WHOLESALE & RETAIL TRADE	115	116	114	119	126	132
43. ENGINES & TURBINES	110	109	110	113	118	121
38. NONFERROUS METALS	100	100	100	101	104	108
32. RUBBER & MISC. PLASTICS PROD.	96	99	103	107	113	120

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

WYOMING

SUMMARY
(MILLIONS OF 1986 DOLLARS)

	1987	1988	1989	1990	1991	1992
DEFENSE						
DIRECT	245	251	256	263	269	275
INDIRECT FROM PURCHASES	267	274	287	294	302	317
INDIRECT FROM PAY	208	207	212	209	209	214
NONDEFENSE	14,488	15,005	15,706	15,931	16,319	16,948
TOTAL	15,209	15,737	16,461	16,697	17,100	17,755

LARGEST SECTORS
(MILLIONS OF 1986 DOLLARS)

DIRECT DEFENSE	152	150	150	151	152	154
82. FEDERAL GOVERNMENT WAGES & SALARIES	28	29	31	33	34	36
73. BUSINESS SERVICES	23	24	26	28	30	31
11. NEW CONSTRUCTION	18	19	20	20	21	21
31. PET REFINING & REL. PROD.	7	10	11	12	12	12
65. TRANSPORTATION & WAREHOUSING	5	5	6	6	6	6
68. UTILITIES	2	2	2	2	3	3
72. PERSONAL SERVICES EXC. AUTO.	1	1	1	1	1	1
66. COMMUNICATION EXC. RADIO & TV						

INDIRECT DEFENSE EXPENDITURES RESULTING FROM DIRECT PURCHASES

8. CRUDE PETROLEUM & N. GAS	93	90	94	95	94	97
73. BUSINESS SERVICES	28	29	29	30	32	34
7. COAL MINING	21	22	23	24	25	28
6. NONFERROUS METAL MINING	20	21	23	23	25	27
31. PET REFINING & REL. PROD.	18	18	17	17	17	17
1. AGRICULTURAL PRODUCTS	12	14	16	16	17	18
10. CHEM&FERTILIZER MIN. MINING	10	11	11	12	12	13
68. UTILITIES	7	7	8	8	8	9

Source: Defense Economic Impact Modeling System (DEIMS), June 5, 1987.

FEEDBACK FORM

1. Did this publication provide the material you needed to interpret the projections in which you were interested? If not, what were the most important missing items?

2. Did the projections for your industry or state seem to be reasonable?

3. Are there other published forecasts with which the projections for your industry or state can be compared?

4. What parts of the projections were most and least useful to you?

MOST

LEAST

<hr/>	Projected direct defense purchases for an industry
<hr/>	Projected indirect defense purchases for an industry
<hr/>	Projected direct defense expenditures for a state
<hr/>	Projected indirect defense expenditures for a state
<hr/>	Projected largest sectors
<hr/>	Projected geographic distribution of direct purchases
<hr/>	Projected geographic distribution of indirect purchases
<hr/>	Other: <hr/>

5. Comments on the format of the tables in this report

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